Department of Energy
Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

October 31, 2000

Mr. Wayne Pierre, Project Manager
Environmental Cleanup Office
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Mr. Dean Nygard, Site Remediation Manager
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, Idaho 83706

SUBJECT: Waste Area Group 7 – Operable Unit (OU) 7-10, Pit 9 Interim Record of Decision, Transmittal of Responses to Agency Comments on the Stage II Draft Remedial Design/Remedial Action Work Plan, (EM-ER-00-206)

REFERENCES:

1) DOE Letter, K. E. Hain/DOE-Idaho to W. Pierre/EPA (X) and D. Nygard/IDEQ, Subject: "OU 7-10 Staged Interim Action Project – Transmittal of the Stage II Remedial Design/Remedial Action Work Plan," June 30, 2000
2) IDEQ Letter, E. J. Underwood to K. E. Hain, Subject: "OU 7-10 Stage II 90% Remedial Design/Remedial Action Work Plan", August 24, 2000
3) EPA (X) Letter, W. Pierre to B. Edgerton, Subject: "Review Comments on Selected Stage II Design Documents for the Pit 9 Contingency Project, Operable Unit 7-10", August 28, 2000
4) DOE Letter, K. E. Hain to W. Pierre and D. Nygard, "Waste Area Group 7 Operable Unit 7-10, Pit 9 Record of Decision, Request for Extension", September 27, 2000

Dear Messrs. Pierre and Nygard:

As committed in the DOE letter of September 27, 2000, [reference 4], transmitted herewith are responses to the U.S. Environmental Protection Agency and the Idaho Department of Environmental Quality comments (references 2 and 3) made to the draft Stage II Remedial Design/Remedial Action (RD/RA) Work Plan (reference 1).

Supportive of its previous requests for extension of milestones, DOE noted during the agency face-to-face meeting on October 2-5, 2000, that trade and engineering studies identified to resolve Agency comments and the associated redesign, will have a significant impact on the preparation of the draft final RD/RA Work Plan. The proposed working schedule for resolution and incorporation of Agency comments on the draft Stage II RD/RA Work Plan, provided by reference 4, is being revised based on the October 2-5 meeting and the October 12 and 19, OU

7-10 Agency teleconferences. The revised schedule to incorporate agency draft RD/RA Work Plan comments will be submitted under separate cover.

Please contact me (208-526-4392) if you have any questions about this letter.

Sincerely,

Kathleen E. Hain

Kathleen E. Hain, Director
Environmental Restoration Division

Enclosure: Comment responses – Stage II RD/RAWP

cc (w/ encl.): M. Clough, IDEQ

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3096
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	General		
Comment:	General		

General 1. Effective July 1, 2000, this Agency was elevated to department status. Therefore, reference should no longer be made to the Idaho Department of Health and Welfare/Division of Environmental Quality (IDHW/IDEQ) or variations thereof. Please refer to this Agency as the Idaho Department of Environmental Quality (IDEQ) in all future submittals.

Response by Dave Wilkins. We recommend incorporating the proposed change; a word search would be made to replace Idaho Department of Health and Welfare/Division of Environmental Quality (IDHW/IDEQ) with Idaho Department of Environmental Quality (IDEQ).

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3097
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	General		
Comment:	General		

General 2. All open items need to be tracked and, before construction is initiated, DOE needs to document how these open items were closed out and the documentation provided to the Agencies. All vendor data and reports must be provided to the Agencies for review. Given that there are open items and additional information to be generated at a later date, IDEQ does not consider the Stage II 90% RD/RAWP complete at this time. The Agencies need to discuss how to proceed with submittal and review of these materials in the context of this primary deliverable.

Response by Dave Wilkins. 1. Open Items - We recommend continuing the tracking of open items through the existing Action Item Tracking System. 2. Vendor data - Per Tri-Party Agreement documented in EDF-ER-151, Document Hierarchy and Deliverables (Binder I-A), vendor data will be provided as received (which is after submittal of the RD/RAWP) as an update to the Primary deliverable. We recommend that the Agencies discuss the level of detail desired in the vendor data submittals since we expect "all" would be overwhelming. 3. We assert that the Stage II 90% RD/RAWP submittal is complete at this time. All parties expended considerable effort reaching agreement on the required contents of the RD/RAWP submittal and documenting the agreement in EDF-ER-151. The June submittal contains the agreed-upon content. Further, outlines, early drafts, and incremental submittals were provided for comment well before submittal of the RD/RAWP package to assure that all parties had consistent expectations. Adjustments were then made before formal submittal. 4. We agree that the details regarding post-RD/RAWP submittals and reviews need to be worked out. We recommend initiating these discussions, perhaps as conference call agenda items.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3098
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	General		
Comment:	General		

General 3. Notwithstanding radionuclide decay processes, the Pit 9 inventory seems to be in a constant state of flux. Please summarize the changes made to the inventory since the inception of this project (i.e., how and why the inventory has changed over time).

Response by Rod Thomas. We recommend incorporating the proposed change. Significant (high level) differences in the inventory should be adequately documented.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3099
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	General		
Comment:	General		

General 4. Although it had been agreed that portions of the design could not be completed until vendor data was submitted, it was IDEQ's expectation that the 90% design be completed to the extent possible. For example, there are a number of procedures that were not "fleshed out" yet these procedures appear independent of vendor data. Examples of such include the Spill Prevention, Control and Countermeasures (SPCC) Plan, Project Waste Acceptance Criteria, and procedure for Inspection and Monitoring of Drums in the WMF-669 Temporary Storage Area. The Stage II 90% RD/RAWP must provide all design and operating requirements in order to reach a pre-final inspection or operational readiness review (ORR).

Response by Comment Processing CPT. As discussed at the 10/3/00 Agency Face-to-Face Meeting, no change to the RD/RAWP package is required in response to this comment. As agreed to, and documented in EDF-ER-151, the requirement for the Phase I O&M Plan is to "identify/outline procedures/plans". Detailed procedures are not required as part of the RD/RAWP package. [This is a consolidated response to comments 3099 (Binder I-A) and 3143 (Binder VII-A).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3100
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	PLN-679 RD/RA Workplan		
Comment:	Page 14 of 121, Section 1.6, Bullet 4		

1. Please clarify that the goal is to maintain cost within the estimate presented in the 1995 Explanation of Significant Differences (ESD) for the project as a whole, not just Stage II. The estimated cost for Stages I and II was presented in the 1998 ESD ($86M).

Response by Dave Wilkins. We recommend rewording the bullet to clarify that the intent was to maintain the cost within the total project estimate presented in the 1995 ESD and the estimate for Stage I and Stage II in the 1998 ESD. At this point the cost will be significantly beyond the estimate.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

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IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3101
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location:	PLN-679 RD/RA Workplan			
Comment:	Page 16 of 121, Section 1.8			

2. Assuming that the Agencies are able to reach agreement on an integration strategy for OU 7-10 and OU 7-13/14 probing campaigns, please note that it is IDEQ's position that optimization of the Stage II location will occur based on Campaign 1 and, assuming Campaigns 1 and 2 are collapsed, Campaign 2 data. Siting of the Stage II location is not dependent upon the outcome of Campaigns 3 and 4.

Response by Dave Wilkins. The IDEQ position is noted. Campaigns 1 and 2 are cache specific and are intended to provide information to locate Stage II. Campaigns 3 and 4 are intended to allow determination of predicting waste location and may or may not influence the final Stage II location.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3102
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location:	PLN-679 RD/RA Workplan			
Comment:	Page 20 of 121, Section 2.2.3			

3. The Document Hierarchy and Deliverables (EDF-ER-151) is an excellent, well-thought out product. IDEQ recommends that when future projects are being scoped in the early stages, it would beneficial for the Agencies to use a similar level of detail to arrive at realistic timeframes/milestones and to identify a more comprehensive up-front listing of primary and secondary deliverables.

Response by Comment Processing CPT. Comment noted and appreciated.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3103
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location:	PLN-679 RD/RA Workplan			
Comment:	Page 23 of 121, Section 3.2, Paragraph 2			

4. IDEQ does not recognize that the "more expansive WAG 7 Remedial Investigation/Feasibility Study (RI/FS) process should better address long-term consequences of such decisions" such as handling or treatment of non-radiological hazardous waste. Instead, the Agencies had agreed that such a determination was dependent upon the outcome of trade studies to be performed subsequent to Stage II once the types/quantities of waste requiring treatment was better understood (i.e., determination of how a particular waste fraction is managed is dependent upon the volume retrieved).

Response by Dave Wilkins. We recommend rewording the text to address the comment. Rationale: Stage II completes retrieval of waste and soil from the 20 ft by 20 ft focus area and provides temporary safe storage for these retrieved materials. (Approved Change Request (CR) 169 addresses this.) At this point trade studies would be performed to determine treatment options as a function of the amount and classification of the retrieved waste (i.e., determination of how a particular waste fraction is managed is dependent on the waste volume).

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3104
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	PLN-679 RD/RA Workplan Page 53 of 121, Figure 8		
Comment:			

5. According to activity block W3a, a trade study will be performed if waste items are unable to fit into a 55-gallon drum. Please describe when these particular trade studies will be performed and where these waste items will be "stored" pending the outcome of the trade study.

Response by Phil Rice. We recommend not pursuing any action associated with this comment. The trade study(s) will be performed at the time that the item is discovered. Any waste item that doesn't fit in a 55-gal drum will remain at the digface pending the outcome of the trade study.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3105
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	PLN-679 RD/RA Workplan Page 85 of 121, Section 8.10, Paragraph 4		
Comment:			

6. There should only be minimal costs for redesign should the Stage II location be slightly altered from the baseline. If something other than pen/ink changes is envisioned, then the Agencies should discuss redesign efforts before such efforts commence.

Response by Dave Wilkins. We recommend not pursing the action proposed. If a location change is made before beginning construction, a pen and ink change is not acceptable control of a subcontractor. On the other hand, if field conditions indicate a slight change in location is needed after we have begun construction in the field, then a pen and ink change (field change request) is possible.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3106
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified	
Location:	PLN-679 RD/RA Workplan Page 102 of 121, Section 13, Paragraph 2		
Comment:			

7. Please elaborate on "with the exception of some characteristic hazardous waste". It would seem that hazardous waste determinations should be performed on all Stage II waste streams to allow for appropriate management and disposition.

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	**3107**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location:	PLN-679 RD/RA Workplan Page 103 of 121, Section 13.2, Paragraph 3			
Comment:				

8. Although assignment of all applicable characteristic hazardous waste codes may not occur for Stage II activities, there is a need that this determination be made at some point to allow for appropriate final disposition.

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3108**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location:	PLN-679 RD/RA Workplan Page 111 of 121, Table 9			
Comment:				

9. Total costs for the environmental enclosure facility (EEF) were indicated to have increased by $2.4M. Please provide a detailed breakdown of costs to justify this cost increase. In addition, please indicate whether or not the Title II 90% Design cost for the material handling structure/equipment reflects the current plan for no fissile monitor in the Soil Handling Center (SHC).

Response by Karl Sorman. The commentor is referred to the cost estimate crosswalk sheet (Title I 30% Redesign to Title II 90% Design) provided with the estimate package for explanation of the cost differences. Detail sheets of the estimates will show greater detail of costs. The cost estimate reflects the current plan for no fissile monitors in the SHC.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3109**
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location:	PLN-679 RD/RA Workplan Page 113 of 121, Section 14.2, Paragraph 1			
Comment:				

10. The assumption that sampling be done on a bulk basis and drummed materials be stored in existing Type II storage facilities is not consistent with the current project baseline. For example, due to capacity limitations and availability constraints of the Type II storage modules, the project has designed and plans to build a separate CERCLA storage facility. Please clarify.

Response by Doug Morrell. We recommend that no action be taken based on the comment. The discussed text is taken from the cost comparison between the original concept (October 1997) and the baseline. These concepts addressed were part of the original 1997 concept and are not part of the current project baseline as stated.

9/378

IDEQ Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3110**
Document: Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location: PLN-679 RD/RA Workplan Page 115 of 121, Table 10			
Comment:			

11. Please retitle this table to avoid using the term "explanation of significant differences" since this term has a much different meaning under CERCLA.

Response by Dave Wilkins. We recommend changing the title of Table 10 to prevent confusion.

IDEQ Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3111**
Document: Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location: PLN-679 RD/RA Workplan, Appendix D, IAG-16 Interface Agreement Between RWMC and Stage II Page 1 of 23			
Comment:			

12. Please indicate when this interface agreement will be updated given the expiration date of "07/27/00".

Response by Jeff Bryan. We recommend updating the RWMC/Stage II Interface Agreement (IAG-16).

IDEQ Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3112**
Document: Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location: PLN-679 RD/RA Workplan, Appendix E, IAG-52 Interface Agreement Between Stage I and Stage II Page 20 of 21			
Comment:			

13. In Requirement No. 3.2.3.5, it can be inferred that the sonic drill rig will need to be stored elsewhere once impervious sealant is applied to the storage facility floor. Please indicate where the sonic drill rig will be stored at that point in time.

Response by Doug Morrell. It is recommended that requirement 3.2.3.5 state that following the sealing of the storage facility floor, Stage I will need to store the drill rig following RWMC accepted methods in a location approved for storage by RWMC operations management.

IDEQ Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	**3113**
Document: Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location: PLN-679 RD/RA Workplan, Appendix G, High Level Schedule through Stage II Activites Appendix G			
Comment:			

14. The timeframes presented in the Stage II summary schedule do not support the milestones dates established in the October 1997 OU 7-10 Remedial Design/Remedial Action Scope of Work and Remedial Design Work Plan (RD/RA SOW) or the OU 7-10 Stage I Work Plan (June 1998). Please clarify.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3114
Document:	Binder I-A Stage II RD/RA Work Plan	Category: Unspecified		
Location:	PLN-679 RD/RA Workplan, Appendix I, Decisions Database Printout Page I-6 of I-15			
Comment:				

15. Please provide copies of both the May 11 and August 27, 1999 letters referenced in Decision No. D-0027.

Response by Mona Dunihoo. We recommend adding these letters to the RD/RAWP package.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3115
Document:	Binder I-B General Equipment Arrangements	Category: Unspecified		
Location:	Sheet A-1 ~~Camera View Layout Plan~~			
Comment:				

16. This drawing should be revised to identify the locations of volatile organic compound (VOC) detectors in both the EEF and RAE.

Response by Dave Stephens. It is recommended that the drawing be revised to identify locations of VOC detectors.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3116
Document:	Binder II Process Definition and Data Needs	Category: Unspecified		
Location:	EDF-1260 Stage II, Data Quality Objectives Page 12 of 14, Section 3.2.2			
Comment:				

17. See Specific Comment No. 8 above. [UCN 3107: 8. Although assignment of all applicable characteristic hazardous waste codes may not occur for Stage II activities, there is a need that this determination be made at some point to allow for appropriate final disposition.]

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

IDEQ Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3117**
Document: Binder II Process Definition and Data Needs	Category: Unspecified		
Location: DOE/ID-10731 Field Sampling Plan Page 3-16, Section 3.1.8, Item 5			
Comment:			

18. Given that Stage II sampling costs increased substantially, please verify that the current cost estimate factors in fingerprinting as opposed to laboratory analysis of sludges.

Response by Mark Borland. We recommend further evaluation of incorporating the proposed change into the solution. Currently the Stage II cost estimate includes a lump sum amount for sampling and analysis. We recommend detailing the cost of sampling and analysis based on the projected numbers of samples and the identified types of analysis to be performed.

IDEQ Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	**3118**
Document: Binder II Process Definition and Data Needs	Category: Unspecified		
Location: DOE/ID-10731 Field Sampling Plan Page 3-16, Section 3.1.8, Item 9			
Comment:			

19. See Specific Comment No. 8 above. [UCN 3107: 8. Although assignment of all applicable characteristic hazardous waste codes may not occur for Stage II activities, there is a need that this determination be made at some point to allow for appropriate final disposition.]

Response by Brent Burton. We recommend taking under consideration the collection of data sufficient to support a complete hazardous waste determination during Stage II. The scope and impact of the changes would be defined and evaluated via Change Requests. Current characterization is aimed at satisfying Stage II objectives, including characterization for safe storage. This approach is consistent with an interpretation that a complete HWD is not needed for storage but would be needed if wastes or soils were sent off site or for disposal. Regarding proper management, note that all Pit 9 derived wastes will be managed in compliance with Subpart I of 40 CFR 264 while in CERCLA storage whether characterized as hazardous waste or not (as best management practice per Agency request - see page 19 of EDF-ER-071, 3rd paragraph). [This is a consolidated response to comments 3106 (Binder I-A), 3107 (Binder I-A), 3116 (Binder II), 3118 (Binder II), 3901 (Binder V), and 3991 (Binder I-A).]

IDEQ Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3119**
Document: Binder II Process Definition and Data Needs	Category: Unspecified		
Location: DOE/ID-10731 Field Sampling Plan Page 4-3 and 4-4, Table 4-1			
Comment:			

20. Please define the triangle symbol " ".

Response by Beth McIlwain. We recommend incorporating a change to correct the symbol. The triangle printed was to have been a "less than or equal to" symbol, per the Word document Field Sampling Plan. (Printer settings may have misinterpreted the symbol.)

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

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IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	**3120**
Document:	Binder II Process Definition and Data Needs	Category: Unspecified		
Location:	DOE/ID-10731 Field Sampling Plan Page 4-16, Section 4.3.3.10			
Comment:				

21. Since the waste/stained soil trade studies will likely not be performed until Stage II operations have been completed, it is recommended that the proposed trade study work plan be submitted as a component of the Stage II Remedial Action (RA) Report. The results of the trade studies could then be subsequently submitted as an addendum to the Stage II RA Report (e.g., in an iterative manner similar to that being implemented for the Stage I report) along with the results of any Stage II treatability studies.

Response by Mark Borland. We recommend incorporating the proposed change into the solution. We recommend revising the document hierarchy (Appendix B of the RD/RA Workplan) to reflect providing the disposition trade study workplan as part of the RA report and following the RA report with an Addendum at the completion of the disposition trade study. (same as comment 3121)

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	**3121**
Document:	Binder II Process Definition and Data Needs	Category: Unspecified		
Location:	DOE/ID-10731 Field Sampling Plan Page 6-9, Section 6.5, Paragraph 3			
Comment:				

22. Waste treatment trade studies should be performed as part of Stage II since this information dictates the types of treatability studies that may/may not be performed as part of Stage II. Note that DOE-ID approved Change Request No. CR 169 which added the referenced trade studies to the scope of Stage II.

Response by Mark Borland. We recommend incorporating the proposed change into the solution. We recommend revising the document hierarchy (Appendix B of the RD/RA workplan to reflect providing the disposition trade study workplan as part of the RA report and following the RA report with an Addendum at the completion of the disposition trade study. (same as 3120)

IDEQ Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3122
Document: Binder V Env/Saf/Q Docs	Category: Unspecified		
Location: PLN-651, INEEL/EXT-2000-00405 QAPjP for TAPS Emissions Monitoring Stage II General			
Comment:			

23. Please address the May 15, 2000 IDEQ comments on the subject document. These comments have yet to be addressed.

The following are responses to the subject comments (from Binder D1 Environmental Documents):

1. [QAPjP for TAPs Emissions Monitoring of OU 7-10, General (UCN 2797)] Because waste has been buried for a period of many years, has the possibility of biodegradation of the halogenated hydrocarbons been reviewed? For example, under anaerobic conditions, trichloroethylene (TCE) can degrade to vinyl chloride. Given that some degradation byproducts, such as dichloroethylene (DCE) and vinyl chloride are not removed very efficiently by carbon absorption, it would be prudent to periodically make emission measurements of such degradation byproducts. - - Response by Paul Ritter. We recommend no changes to documentation be made based on the comment since the plan already addresses the potential for emission of degradation products by allowing for detection and tentative identification and quantification of TICs. The degradation products are expected to be present at low concentrations relative to the solvents that were buried with the waste, and represent a small hazard relative to the known solvents, particularly carbon tetrachloride. The presence of degradation products will be indicated by unknown peaks in the process GC output. If significant unknown peaks are noticed by the GC/ECD, but cannot be identified/quantified, Method TO14a sampling and analysis will be performed. If the results of GC and Method TO14a measurements show that the risk posed by degradation products is a significant fraction of the overall risk associated with the emissions, the monitoring program will be modified for better coverage of the emissions of the degradation products (i.e., modify the GC operations to quantify the specific degradation product(s) of concern.

2. [QAPjP for TAPs Emissions Monitoring of OU 7-10, Page 13 of 59 section 1.1 (UCN 2798)] While it is perfectly acceptable to describe the three stages of the OU 7-10 project, it is not appropriate to establish a schedule in this document. Please delete all dates. - - Response by Paul Ritter. We recommend deleting dates as stated.

3. [QAPjP for TAPs Emissions Monitoring of OU 7-10, Page 14 of 59 section 1.2 (UCN 2799)] Revise the second sentence as follows: "For Non-Radionuclide emissions, the only ARAR that might require monitoring of the OU 7-10 stack is the TAPs (toxic air pollutants) Rule." - - Response by Paul Ritter. We recommend incorporating the changes.

4. [QAPjP for TAPs Emissions Monitoring of OU 7-10, Page 17 of 59 section 2.1.1 (UCN 2800)] The OU 7-10 staff will perform quarterly and annual calculations of the TAPs emissions released from the REE (sic) HVAC stack. If the stack sampling and monitoring is not an approved method for that specific purpose, then those emissions should be designated as estimated emissions. - - Response by Paul Ritter. We recommend accepting this comment as it applies to our proposal for mercury sampling, assuming that use of the term "estimated emissions" won't compromise our use of the data -- otherwise, we should discuss further with the Agencies. I don't think that there are any reference methods for continuous sampling for mercury. Method 5 is for short term sampling under steady-state operation of e.g., a coal-fired power plant, and would not be appropriate for monitoring a retrieval operation. The proposed method is expected to be sufficiently sensitive to measure mercury emissions at a small fraction of the AAC. The GC CEMS will be operated to EPA Performance Specification 9, and data from the GC should be acceptable as measurement of "emissions", not qualified as "estimated emissions." Method TO-14a is not approved for stack

sampling -- just for ambient air. My understanding (based on conversations with Rema Howell at EPA/Research Triangle) is that Method TO-14a wasn't approved for stack sampling because some canisters are too reactive, and the manufacturer of a potentially acceptable canisters (Restek Inc.) hasn't provided information to support the claim that their canisters are sufficiently passive. We accept this comment with respect to emissions measured using TO-14A, particularly because we don't plan to do continuous sampling into canisters. A CEMS will generally give more reliable emissions data than results of periodic sampling and analysis.

5. [QAPjP for TAPs Emissions Monitoring of OU 7-10, Page 22 of 59 section 3.3 (UCN 2801)] This section states that flow measurement will conform to ANSI 99. Is this the 1999 revision to ANSI 13.1-1969? If not, what is the official ANSI document number and title? - - Response by Paul Ritter. Yes, ANSI 99 refers to ANSI/HPS N13.1-1999, "Sampling and Monitoring Releases of Airborne Radioactive Substances from the Stacks and Ducts of Nuclear Facilities."

6. [QAPjP for TAPs Emissions Monitoring of OU 7-10, Page 22 of 59 section 3.3 (UCN 2802)] This section states that 1,1,1-trichloroethane (TCA), a non-carcinogen, is in the Pit 9 inventory. However, the Record of Decision does not speciate the TCA between 1,1,1-TCA and 1,1,2-TCA, a carcinogen. Therefore, if other measurements are made in concert with CCl4 measurements, these measurements should involve 1,1,1-TCA and 1,1,2-TCA. - - Response by Paul Ritter. My understanding (from discussions with Richard Roblee) is that there is no 1,1,2 TCA in the inventory based on Rocky Flats records, and because it really isn't used in industry. Unless there is something particularly difficult about detecting/measuring 1,1,2 TCA, if present, it should be characterized as part of the TIC analysis. If present in substantial amounts (as determined by comparison to the risk-weighted releases of carbon tetrachloride) then we should consider more intensive sampling/analysis for 1,1,2 TCA.

7. [QAPjP for TAPs Emissions Monitoring of OU 7-10, Page 22 of 59 section 3.3 (UCN 2803)] This section states that TCA and tricholoethylene (TCE) pose most of the non-carcinogen risk. Note that TCE and 1,1,2-TCA are considered by EPA to be carcinogens. - - Response by Paul Ritter. As of 10/17/00, the IDAPA regulations list TCE (trichloroethylene) as a carcinogen. The EPA IRIS database states "The carcinogen assessment summary for this substance has been withdrawn following further review. A new carcinogen summary is in preparation by the CRAVE Work Group." The EPA's Supervened Technical Support Center does provide slope factors for TCE, although the web page prints with a "DO NOT QUOTE OR CITE" header. The risk assessment for VOC emissions from the OU7-10 RAE stack also treated TCE as a carcinogen, and found that TCE would not be an important contributor to carcinogenic risk. As noted in the response for item 7, 1,1,2 TCA is not believed to be in the inventory.

8. [QAPjP for TAPs Emissions Monitoring of OU 7-10, Page 26 of 59 section 4.1.2 (UCN 2804)] This section states that either CG/ECD or EPA Method TO-14A may be used to measure the VOC concentration in the stack. Method TO-14A is approved by EPA for the monitoring of ambient air, and not for stack measurement. In order to meet EPA approval for stack measurement, the conditions delineated in 10 CFR 60 must be met. - - Response by Paul Ritter. The GC/ECD CEMS will be operated in accordance with Performance Specification 9 from 40CFR60 App. B. The GC/ECD CEMS will probably be the primary basis for our emissions estimates of the VOCs that are known to be in the inventory, and that drive the risk estimates. I agree concerning method TO-14a -- although Method TO14a might be technically defensible, it is not approved for stack sampling -- just for ambient air. My understanding (based on conversations with Rema Howell at EPA/Research Triangle) is that Method TO14a wasn't approved for stack sampling because some canisters (unlike the Restek Silcosteel canisters that we specified) are too reactive to be considered acceptable for source testing/measurement.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3123
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified		
Location:	PLN-652, INEEL/EXT-2000-00407 QAPjP - NESHAPs Monitoring of Pit 9 of Stage II			
Comment:	General			

24. Please address the May 15, 2000 IDEQ comments on the subject document. These comments have yet to be addressed.

The following are responses to the subject comments (from Binder D1 Environmental Documents):

9. [QAPjP for NESHAPs Monitoring of OU 7-10, General (UCN 2805)] PSD Requirements: This document cites the requirements from 10 CFR 61, Subpart H (Radionuclide NESHAPs) monitoring, however there is no mention of IDAPA 16.01.01.003.93.b. In accordance with this regulation, the radionuclide emissions are significant, and prevention of significant deterioration (PSD) rules are applicable. Is this information discussed in another document? - - Response by Paul Ritter and Brent Burton. We recommend making no change to the document. The citations appear to be in error. The information is not discussed in another document because the ROD ARARs do not include IDAPA PSD rules for radionuclides. It is agreed that the radionuclide emissions would be significant as defined by IDAPA; however, it is not clear what additional substantive actions this implies considering that the project is employing HEPA filtration (i.e., BACT) to control radionuclide emissions.

10. [QAPjP for NESHAPs Monitoring of OU 7-10, General (UCN 2806)] ANSI Standards: This document cites compliance with ANSIN 13.1-1999, however, this standard has not been officially adopted by 10 CFR 61, Subpart H. Also, the current standard, ANSIN 13.1-1969, was the applicable regulation at the time of ROD signature. : - Response by Paul Ritter. Continuous record sampling must be performed for the OU7-10 retrieval in accordance with 40 CFR 61, Appendix B, Method 114. Method 114 incorporates by reference ANSI N13.1-1969, "American National Standard Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities," which was updated and superceded by a revision released in May 1999 (referred to here as ANSI 99). The 1969 version of ANSI N13.1 (referred to here as ANSI 69) is no longer endorsed by the ANSI, and the EPA has proposed in new rulemaking (USEPA, Notice of Proposed Rulemaking, NESHAP Subpart H, Federal Register, May 9, 2000, Volume 65, Number 90, pages 29933-29937) that stack monitoring systems constructed before October 1, 2000, which comply with ANSI 69, are acceptable, and that stack monitoring systems constructed after October 1, 2000 must comply with ANSI 99. We recommend further evaluation and discussions among the parties on this topic.

11. [QAPjP for NESHAPs Monitoring of OU 7-10, General (UCN 2807)] Emission Points: This document describes the emissions from the REE (sic) HVAC stack. The NESHAPs requires documentation of all emissions, including fugitive emissions. Are there any other possible radionuclide emission points that should be documented? - - Response by Paul Ritter and Brent Burton. The EDF Operable Unit 7-10 (Pit 9) Interim Action Project, Stage II Air Emissions Evaluation, ER-WAG7-109, Rev 0, is the project report that documents all of the emissions sources for the Stage II project including emissions from the CERCLA storage facility. The evaluation did not identify any fugitive emissions sources for radionuclides. The QAPjP document is limited to addressing emissions from the RAE stack because this emissions point was the only point identified in the Stage II air emissions evaluation EDF as requiring monitoring.

12. [QAPjP for NESHAPs Monitoring of OU 7-10, Page 6 of 38 section 1.1 (UCN 2808)] Please delete reference to dates. Project schedules are not to be established in this document. - - Response by Paul Ritter. We recommend deleting the dates as stated.

13. [QAPjP for NESHAPs Monitoring of OU 7-10, Page 22 of 38 section 4.2.1 (UCN 2809)] In accordance with 40 CFR 61.93, Subpart H, stack gas velocity and volumetric flow rate is to be determined using 40 CFR 60, Appendix A Methods 2 of 2A, depending on the pipe and flow conditions. If the flow conditions are unacceptable, an alternative method to Method 2/2A must be provided for approval. - - Response by Paul Ritter. Continuous record sampling must be performed for the OU7-10 retrieval in accordance with 40 CFR 61, Appendix B, Method 114. Method 114 incorporates by reference ANSI N13.1-1969, "American National Standard Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities," which was updated and superceded by a revision released in May 1999 (referred to here as ANSI 99). The 1969 version of ANSI N13.1 (referred to here as ANSI 69) is no longer endorsed by the ANSI, and the EPA has proposed in new rulemaking (USEPA, Notice of Proposed Rulemaking, NESHAP Subpart H, Federal Register, May 9, 2000, Volume 65, Number 90, pages 29933-29937) that stack monitoring systems constructed after October 1, 2000 must comply with ANSI 99, and that the velocity and flow measurements should also be conducted in accordance with ANSI 99. The ANSI 99 method is a variant of EPA Method 2. We recommend further evaluation and discussions among the parties on this topic.

IDEQ Reviewer: IDEQ Jean Underwood Significant? Yes Comment # **3124**

Document: Binder V Env/Saf/Q Docs Category: Unspecified

Location: DOE/ID-10789 Waste Management Plan

Comment: Page 3-8, Section 3.2

25. In cases of discrete containers of liquids, it appears that these will not be stabilized before going to storage. This is contrary to the requirement that there be no free liquids sent to the CERCLA storage facility.

Response by Brent Burton. We recommend adding clarifying language in the Waste Management Plan, Chemical Compatibility Assessment Report, and EDF-ER-137 (Liquid Waste EDF), specifying temporary storage of unknown liquids in the RAE rather than the storage building (i.e., pending characterization results and evaluation). This approach is subject to space limitations. In the event space is not available, temporary storage in the EEF is the next preferred location. A special case handling procedure would be developed to guide these activities.

IDEQ Reviewer: IDEQ Jean Underwood Significant? No Comment # **3125**

Document: Binder V Env/Saf/Q Docs Category: Unspecified

Location: DOE/ID-10789 Waste Management Plan

Comment: Page 4-10, Section 4.2.2.1, Paragraph 3

26. Please indicate whether or not decontamination wastes will be placed in the same 55-gallon drum of waste materials processed in the Material Handling Center (MHC) just prior to decon. If not, then the procedures for containerizing decontamination wastes must be described.

Response by Brent Burton. We recommend revising the Waste Management Plan to clarify that the plan is to separately drum secondary decontamination wastes in the MHC.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3126
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified	
Location:	DOE/ID-10790 Pollution Prevention/Waste Minimization Plan		
Comment:	Page 3-29, Section 3.7		

27. This section describes potential waste minimization opportunities that could be implemented but have not been integrated into any particular process. The potential opportunities described concern collection of characterization data up front in the process to conduct complete hazardous waste determinations, collecting data required by WIPP and the INEEL AMWTF, and characterization of secondary wastes associated with Pit 9 derived wastes. It is strongly recommended that DOE integrate these opportunities into the applicable process so that decisions are made on analytical data. The added benefit is that this should minimize reopening and extra handling of drums once in storage which should save considerable costs and reduce unnecessary exposure to site workers.

Response by Comment Processing CPT. As agreed to in the 10/3/00 Agency Face-to-Face meeting, we propose to do all data collection as required by the DQOs. Further, EDF-ER-151, Document Hierarchy and Deliverables, should be modified to show that the Stage II RA Report must include an evaluation of the disposition of all retrieved soils and waste from the Stage II excavation area, including the collection of data and an evaluation of long-term management strategies for the waste and soil.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3127
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified	
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation		
Comment:	Page 13, Section 6.4		

28. It is unclear why the criticality safety of the SHC was evaluated at the 30% design level given that the design has matured to the 90% level. Please evaluate the criticality safety of the SHC based on the 90% design.

Response by Todd Taylor. We recommend no change to the document. The 30% design package was used for consistency. We recognize that even though the design has progressed, the control on the SHC is fissile mass, which will not be affected by the design. The preliminary CSE is adequate since it defines the appropriate physical and administrative controls.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3128
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified	
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation		
Comment:	Page 17, Section 6.5		

29. It is unclear why the criticality safety of the MHC was evaluated at the 30% design level given that the design has matured to the 90% level. Please evaluate the criticality safety of the MHC based on the 90% design.

Response by Todd Taylor. We recommend no change to the document. The 30% design package was used for consistency. We recognize that even though the design has progressed, the control on the MHC is fissile mass, which will not be affected by the design. The preliminary CSE is adequate since it defines the appropriate physical and administrative controls.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3129
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified	
Location:	INEEL/EXT-2000-000690 Preliminary Criticality Safety Evaluation Page 19, Section 7.2.1, Paragraph 2		
Comment:			

30. An engineering device to control the build-up of fissile material within the SHC system may be required pending further evaluation. This should be determined and included as part of the 90% design.

Response by Comment Processing CPT. Per Tri-Party agreement at the 10/3/00 Agency Face-to-Face meeting, we recommend revising Phase I O&M Plan Procedure EOP-006 Sections 4.5 and 4.6 to include limiting clogging and build ups in the SHS for criticality control, and to address the potential role of the digface monitor in criticality control. [This is a consolidated response to comments 3129 (Binder V) and 3906 (Binder V).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3130
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified	
Location:	INEEL/EXT-2000-00707 Fire Hazards Analysis Page 2 of 71, Section 1.2, Paragraph 2		
Comment:			

31. It is incomprehensible that the potential for a fire or explosion resulting from the placement of sheet pilings was not evaluated in the subject Fire Hazards Analysis (FHA). This evaluation must be performed in support of the Stage II 90% design given that the outcome could potentially have significant consequences in terms of impact to baseline assumptions and overall project direction.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: An underground fire and/or explosion initiated by shoring pile installation is addressed in Appendix A to USQ Safety Evaluation No. SE-RWMC-99-039. (A copy was provided to the Agencies on 10/9/00.) We recommend adding this USQ to the RD/RAWP package. We also recommend providing additional detail on modeling to be performed, plans for cold testing, and measures planned during installation. Further, we recommend modifying the piling specification to indicate that the Project will provide direction (e.g. driving rates) for piling installation. We do not anticipate the need for design changes, but realize that procedures might have to be updated. [This is a consolidated response to comments 3130 (Binder V), 3163 (Binder XXIV), 3166 (Binder XXIV), 3211 (Binder I-A), and 3990 (Binder I-A).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3131
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified	
Location:	INEEL/EXT-99-00013 Preliminary Safety Assessment Page 5-4, Section 5.5.3		
Comment:			

32. This section appears to indicate that an independent criticality safety evaluation will be performed each time there is an indication of "no go" and operations are put in STANDBY mode. It is recommended that a single document be prepared to bound the potential scenarios and to identify the appropriate course of action. Otherwise, significant time may unnecessarily be expended in performing individual evaluations.

Response by Rod Peatross. We recommend a minor revision to the PSA that makes it clear that these cases will be evaluated by criticality safety, but that a criticality safety evaluation report might not be required.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3132
Document:	Binder V Env/Saf/Q Docs	Category: Unspecified		
Location:	INEEL/EXT-99-00013 Preliminary Safety Assessment Page 5-4, Sections 5.5.3.2 and 5.5.3.3			
Comment:				

33. Please clarify how the digface monitor (DFM) and the material load-out area (MLA) fissile monitor are effective administrative controls during processing of materials in the MHC or SHC. Specifically, the DFM is used to plan retrievals so that the 380-g Pu-239 limit is not exceeded. In addition, the MLA fissile monitor is a post-MHC or -SHC operation and, as such, would appear to have little bearing on the materials handled in the MHC or SHC.

Response by Mark Borland. We recommend further evaluation of incorporating the proposed change into the solution. To clarify how the monitors function as a control, envision the following: The Material Handling Center (MHC) is a fissile mass control area. The Digface monitor (DFM) and the material load-out area monitor (MLA) function as control gates tracking the quantity of material contained within the MHC. The DFM is an input counter and the MLA and output counter. The difference between the input and output is the total fissile mass assumed to be contained in the MHC. This total must be maintained below 380gm per the Criticality Safety Evaluation. Before an ITM load can be transferred to the MHC the fissile content of the ITM must be added to the existing fissile mass contained in the MHC. If the combined quantity exceeds 380gms, then the MHC must package and remove some material before receiving the ITM. To prevent accumulation of errors due to differences in accuracy between the DFM and the MLA, the MHC content can be "zeroed" by emptying the MHC of waste and completing decontamination. We recommend revising Section 5.5.3.2 of the Preliminary Safety Assessment to clarify the accounting of fissile material in the MHC.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3133
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation Summary, Recommendation 1			
Comment:				

34. DOE recommends that a trade study be performed to select the preferred means for performing the RAE relocation. IDEQ expected that this trade study be submitted as a component of the Stage II 90% RD/RAWP. It is imperative that such a trade study be performed so that there is an opportunity to affect the RAE design in a timely manner.

Response by Comment Processing CPT. As agreed to in the 10/2/00 Agency Face-to-Face Meeting, we recommend modifying the appropriate construction specifications to require the construction subcontractor to provide a detailed relocation plan describing how the facility will be relocated. The plan would be reviewed by the Agencies during the constructability review.

OU 7-10 Staged Interim Action Project, Stage II, Title II
Response Report - sorted by Unique Comment Number

Printed: 10/30/00

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	**3134**
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation Summary, Recommendation 5			
Comment:				

35. IDEQ agrees that further discussion is needed regarding the end-state of Pit 9 following Stage III. However, note that any decisions regarding end-state must be consistent with criteria established in the OU 7-10 Record of Decision (ROD).

Response by Jeff Bryan. We recommend modifying the second to the last sentence of recommendation #5 to read: "These alternatives and conditions could affect Stage II plans and designs (see Note 3) and must be consistent with criteria established in the OU 7-10 Record of Decision (ROD)." Rationale: Provides further clarification and bounds for the end-state of Stage II.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3135**
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation Page 9 of 20, Section 1.1, Paragraph 2			
Comment:				

36. IDEQ agrees that relocation of the Stage II facilities and equipment is not expected as part of Stage II; however, the possibility cannot be definitively eliminated at this point in time.

Response by Jeff Bryan. We recommend that no changes be made to Stage II documents other than those proposed in EDF-ER-160. Proposed TFR requirement #6 (see App. D of EDF-ER-160), and its rationale, describe the planned end-state of Stage II, to occur when Stage II facilities are placed into cold standby. Any relocation of these facilities is anticipated to be a part of the Stage III effort (TBD). It is recognized that this planned end-point for Stage II (not yet baselined) could be changed to include one or more relocations as needed via the approval of a Change Request (CR) defining the additional scope and a new Stage II endpoint.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	**3136**
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation Page 10 of 20, Section 1.2, Last Paragraph			
Comment:				

37. Final closure of the Stage II excavation/retrieval area is not to await final closure of the entire Subsurface Disposal Area (SDA). Instead, closure should be addressed in accordance with the OU 7-10 ROD.

Response by Jeff Bryan. Recommend deleting the text ", or the entire Subsurface Disposal Area (SDA)" in the second sentence of the last paragraph of Section 1.2 as well as other occurrences of the phrase throughout EDF-ER-160. Rationale: Delete phrase to avoid confusion. For clarification, inclusion of the phrase was intended only to leave an option open for addressing a covered void (one possible future state) at a later time when residual risks present in Pit 9 are evaluated as a part of OU 7-13/14. This end state is conceivable if full-scale remediation proves infeasible or that Stage III entails "hot-spot" retrieval(s).

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3137
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation			
Comment:	Page 16 of 20, Section 3.1, Paragraph 2, Bullet 2			

38. DOE has made an assumption that double confinement of the excavation area is eliminated for its post-operations life cycle phases. Please explain how this assumption is consistent with DOE order requirements. While the RAE may not have a separate secondary confinement structure that moves with it during relocation, IDEQ recommends that an evaluation be performed to determine if secondary confinement may be achieved in some other equivalent manner.

Response by Jeff Bryan. We recommend performing an analysis to determine if double confinement is needed for the post operations retrieval area and during move of the RAE.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3138
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation			
Comment:	Appendix B, General			

39. As there is no extra space within the proposed OU 7-10 CERCLA storage facility, please describe where all bagged-out equipment, etc. will be stored during cold standby.

Response by Jeff Bryan. We recommend no changes to Stage II documents at this time. This topic should be addressed through Change Request (CR) process. After approval of an appropriate CR, we recommend a trade study to evaluate alternatives for storing bagged out equipment. Rationale: EDF-ER-160, when issued (i.e., Rev. 0), should drive the initiation of several CRs that would affect the Stage II baseline by adding/modifying requirements as indicated in Appendix D of EDF-ER-160. Implementation of these CRs would include flowdown of applicable requirements to the DRDs and the ORD. Note that proposed requirement #8 (in App. D) creates the basis for Stage II designs to accommodate maintaining Stage II facilities, equipment, and processes in a cold standby state. Providing storage space for bagged-out equipment should be a flowdown requirement from #8. Many alternatives exist for meeting such a flowdown requirement (e.g., heated cargo container(s), expanded Stage II storage building) and should be analyzed via trade study to ensure a cost-effective solution.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3139**
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation Appendix B, Page 2 of 11, Item 6			
Comment:				

40. If a release occurs within the secondary confinement structure, please clarify whether or not decontamination of the secondary confinement structure will be performed to mitigate the further spread of contamination.

Response by Jeff Bryan. We recommend the development of an OU 7-10 Stage II facility-specific radiological/ hazardous contaminant release response plan(s) for inclusion in the RWMC Addendum to the INEEL Emergency Response/RCRA Contingency Plan prior to operations. This plan (or plans) should focus on control and mitigation actions/methods and the resumption of Stage II operations (or Stage II close-out activities) in the event that a release has occurred within the secondary confinement. Rationale: While releases that occur during cold standby are out of scope for Stage II (i.e., currently planned as a part of Stage III), releases could occur during Stage II operations or closeout activities. An emergency preparedness/response plan should be in place to mitigate the further spread of contamination.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3140**
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation Appendix B, Page 5 of 11, Item 7			
Comment:				

41. Consideration should be given to the covers having integral carbon filters as well as integral HEPA filters.

Response by Jeff Bryan. For clarification, such consideration is reflected in proposed new requirements #20 - 22 and #37 - 39 contained in Appendix D of this EDF. We recommend that the text in the Notes/ Assumptions column of Appendix B be modified to reflect the need to contain hazardous and radiological contaminants rather than specifying exact solutions of the design. Rationale: Provide clarification on intended plans for final design.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3141
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	EDF-ER-160, OU 7-10, Stage II, D&D/Closure Planning and Requirements Investigation Appendix B, Page 11 of 11, Item 16F			
Comment:				

42. Please provide justification for not maintaining radiation and hazardous gas monitoring at the stack during cold standby. Furthermore, indicate when an evaluation of air emissions during cold standby will be prepared. It may be beneficial to prepare such an evaluation once Stage II operational data is available.

Response by Jeff Bryan. For clarification, we recommend adding the following justification to the Appendix B assumptions in EDF-ER-160 as to why radiation and hazardous gas monitoring is not maintained at the stack during cold standby:
1) the source term is assumed to have been removed from the Stage II area
2) the absence of operations to "stir up" contaminants
3) the cover installed over the excavation area is assumed to prevent migration of contaminants from the pit
4) RAE interior is assumed to have had loose contamination removed, contained, or affixed
5) HEPA/Carbon filters in main exhaust still in place/functioning (no DP though)
6) Exhaust fans are assumed to be deactivated so there would be no airflow stream to speak of from which the monitors could measure concentrations of contaminants.
We also recommend performing an air emissions evaluation for the cold standby period to validate/invalidate these assumptions for future planning. It is agreed that this evaluation would best be performed when Stage II operational data is available (e.g., when it is known what source term remains in the excavation area). Note that stack air samples may be taken manually as needed.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3142
Document:	Binder VI Misc Docs	Category: Unspecified		
Location:	PLN-632, OU 7-10 SIA Project Physical Security Plan, INEEL Company Manual 11 Page 7 of 9, Section 6.5.6			
Comment:				

43. The Physical Security Plan indicates that operations will essentially cease when a camera or video recorder becomes inoperable. In order that operational down time is kept to a minimum, IDEQ recommends that back-up or replacement equipment is readily available.

Response by Patricia Jurbala. We recommend adding a requirement in the Operations and Maintenance Plan to maintain camera spares for use if the camera or video recorder becomes inoperable. The Security Plan should remain "as is" because it adequately protects the security interests by ceasing loading operations until a camera is operational.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3143
Document:	Binder VII-A O&M Plan & App A-F	Category: Unspecified	
Location:	O&M Plan-678, Appendix E, Normal Ops Plan/Procedures		
Comment:	General		

44. There is a lack of overall detail in the procedures included in Appendix E. IDEQ provides the following three examples to support our observation. First, PAP-009 (Page 5 of 9, Section 4.3.7) indicates that uncontainerized liquids will be absorbed at the digface but does describe how this is to be accomplished. Second, PAP-009 (Page 8 of 9, Section 5) does not detail operational physical and chemical data needs and observations to be noted during retrieval. Third, PAP-011 (Page 4 of 5, Section 4.3) does not describe how to process and label wet/dry secondary waste generated as a result of decontamination activities. IDEQ requests that the procedures be sufficiently detailed and include appropriate performance standards as part of the Stage II 90% RD/RAWP.

Response by Comment Processing CPT. As discussed at the 10/3/00 Agency Face-to-Face Meeting, no change to the RD/RAWP package is required in response to this comment. As agreed to, and documented in EDF-ER-151, the requirement for the Phase I O&M Plan is to "identify/outline procedures/plans". Detailed procedures are not required as part of the RD/RAWP package. [This is a consolidated response to comments 3099 (Binder I-A) and 3143 (Binder VII-A).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3144
Document:	Binder VII-A O&M Plan & App A-F	Category: Unspecified	
Location:	O&M Plan-678, Appendix E, Normal Ops Plan/Procedures, EOP-006 Operating the SVS		
Comment:	Page 8 of 18, Paragraph 3		

45. Please describe how confinement will be maintained or contamination spread minimized when the side access door on the hopper is opened. This should be part of the procedures.

Response by Bob Carpenedo. We recommend adding verbiage to EOP-006 paragraph 4.6 that describes how confinement will be maintained and contamination spread minimized if the access panel on the SVS hopper is to be opened. The hopper and panel are already in a glovebox therefore confinement is maintained. To minimize contamination spread the hopper will be verified empty prior to removing the panel. All work will be through gloveports.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment # 3145
Document:	Binder VII-C App H-O	Category: Unspecified	
Location:	O&M Plan-678, Appendix J, EDF-ER-137, INEEL/EXT-2000-00531, Liquid Management Plan		
Comment:	Page 15 of 26, Table 4		

46. Please indicate when the specific procedure for management of unknown liquids will be prepared. It is imperative that procedures be developed to address how unknown containerized liquids will be managed to comply with safe storage and chemical compatibility objectives.

Response by Bob Carpenedo. We recommend preparing an annotated outline for a special procedure for management of unknown liquids. The procedure itself would be completed for issue with the other special handling/operations procedures.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # **3146**
Document:	Binder VII-C App H-O	Category: Unspecified	
Location:	O&M Plan-678, Appendix N, INEEL/EXT-2000-00857, Master Test and Evaluation Plan Page 8-2, Section 8.3, Paragraph 2		
Comment:			

47. Test reports must be made available to the Agencies for review in support of the pre-final inspection to be performed before Stage II operational start up.

Response by Phil Rice. We recommend incorporating the proposed change into the solution. The test reports should be provided to the Agencies as requested.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # **3147**
Document:	Binder VIII Prefinal Inspection Checklist	Category: Unspecified	
Location:	PFIC-000, Prefinal Inspection Checklist Appendix A, General		
Comment:			

48. Instead of the pre-final inspection checklist categories of "satisfactory" and "open", IDEQ recommends the following categories: incomplete; complete; complies; and, does not comply. This allows for items to be completed differently from that initially envisioned in planning documents as long as the specified requirements are satisfied.

Response by Phil Rice. We recommend incorporating the proposed change into the solution. In addition, instructions should be included in the body of the PFIC as follows (paraphrased): INCOMPLETE - means that the item has not been finished and therefore remains open until completed. COMPLETE - means that the item has been finished. COMPLIES - means that the item complies with either the verbatim requirement or the spirit and intent of the requirement. This allows for items to be completed differently from that initially envisioned in planning documents as long as the specified requirements are satisfied. DOES NOT COMPLY - means that the item does not meet either the verbatim requirements or the spirit and intent of the requirements. NOTE: Two (2) marks would be required for each line element on the checklist: 1) COMPLETE/INCOMPLETE and 2) COMPLIES/DOES NOT COMPLY. Items that are complete may or may not be in compliance with specified requirements. The NOTES field would be retained in the PFIC so that notes on INCOMPLETE or DOES NOT COMPLY items could be entered and tracked.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # **3148**
Document:	Binder VIII Prefinal Inspection Checklist	Category: Unspecified	
Location:	PFIC-000, Prefinal Inspection Checklist Appendix A, Page 3 of 8, Inspection Item 6		
Comment:			

49. A facility VOC monitor system should be added to the pre-final inspection checklist. In addition, if HEPA and carbon filters are not considered part of the "EEF HVAC System", then these items should be identified as a separate system on the pre-final inspection checklist.

Response by Phil Rice. We recommend incorporating the proposed change into the solution. The VOC monitoring system should be added to Section 6 "Systems and Components" and Section 9 "Inspections and Maintenance" of the PFIC. Note that PAP-018 "Monitoring Volatile Organic Compounds (VOC) and Mercury (Hg)" is included in the checklist. Other than those directly associated with instrumentation, there are no HEPA and carbon filters not associated with the EEF HVAC System.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3149
Document:	Binder XI-B SDD-21 ERS	Category: Unspecified		
Location:	SDD-21, INEEL/EXT-2000-00259, Stage II, ERS - SDD			
Comment:	Page 54 of 117, Section 4.1.1.4.2, Item E			

50. The nibbler is indicated to require a minimum 0.87-inch diameter starting hole. It is not apparent which of the described tools would actually have this capability. If none of the described tools have this capability, IDEQ recommends that a drill and appropriate drill bit be added to the "toolbox".

Response by Comment Processing CPT. We recommend adding a drill (or rotodrill) and bits to the ERS tool set to assist in sizing operations. [This is a consolidated response to comments 3149 (Binder XI-B) and 4028 (Binder XI-B).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3150
Document:	Binder XI-C SDDs	Category: Unspecified		
Location:	SDD-22, SDD-23 and SDD-26			
Comment:	General			

51. Appendices are identified but not actually included in the respective documents. Please clarify.

Response by James Case for Carol Reid. We recommend addition of further explanation of the absence of the Appendices. The Appendices are included in the SDDs as a placeholder per the format dictated by MCP-3572.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3151
Document:	Binder XI-C SDDs	Category: Unspecified		
Location:	SDD-23, INEEL/EXT-2000-00261, Stage II, SS - SDD			
Comment:	Page 11 of 30, Section 3.1.2			

52. Please explain how a total measurement uncertainty of 15 nCi/g and a minimal detection concentration of 40 nCi/g will allow for detection of material in Pit 9 containing TRU constituents >10 nCi/g.

Response by Doug Morrell. The reviewer is referred to EDF-ER-129 in Binder XIX (Storage-Part II, Assay and Transportation). The EDF analyzes the overall requirement that the average transuranic concentration must not exceed 10 nCi/g at the 95% confidence level. Four analytical families of possible distributions are used in the analysis. Results of the analysis indicate that to maintain an average TRU concentration less than 10 nCi/g, the assay equipment must have a total measurement uncertainty of 15 nCi/g and a minimal detection concentration of 40 nCi/g.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3152
Document:	Binder XI-D DAMS	Category: Unspecified		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD			
Comment:	Page iii of xvi, Paragraph 3			

53. Please provide the missing reference.

Response by James Case. We recommend incorporating the missing reference into the document as requested. The reference should be to Section 3.2.6 on page 60 of 109.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3153**
Document:	Binder XI-D DAMS	Category: Unspecified		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD			
Comment:	Page 19 of 109			

54. Please explain why the estimated infrastructure cost is defined in terms of a percentage of the RWMC's infrastructure cost. In addition, to the knowledge of this reviewer, there are no Stage II systems to be fueled by natural gas. Therefore, please explain why the cost of natural ("national") gas is being estimated for the Stage II project.

Response by Jim Rose. We recommend changing the word "National" to "Natural" in the definition of "Estimated Natural Gas". The Stage II infrastructure cost can only be estimated because all the specific components of the total cost are not individually metered/measured, e.g., electric power. Using a percentage of the total RWMC costs for the appropriate components seems reasonable. Also, by inclusion of natural gas as a possible component of infrastructure cost does not necessarily have a cost associated with it. It is merely a place-holder in the DAMS design against a remote possibility.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3154**
Document:	Binder XI-D DAMS	Category: Unspecified		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD			
Comment:	Page 20 of 109			

55. Besides a fissile monitoring device attached to the digface monitor, separate fissile monitoring stations are identified as part of the Stage II design.

Response by Jim Rose. We recommend the definition of "Fissile Monitor" be broadened to include the MHC Fill Monitors and the EEF Drum Fissile Monitor. The exclusion of these monitors was inadvertent and should be corrected.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3155**
Document:	Binder XI-D DAMS	Category: Unspecified		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD			
Comment:	Page 25 of 109			

56. Please note that VOCs were not envisioned to be measured at the digface contrary to the definition provided for "Pit Characteristics Data". The nearest VOC measurement station would be at the digface ventilation hood.

Response by Jim Rose. The definition of "Pit Characteristics Data" as written can be misinterpreted. We recommend the definition be reworded to say "..... by the digface monitor and other sources; such as .....".

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3156
Document:	Binder XI-D DAMS	Category: Unspecified		
Location:	SDD-25, INEEL/EXT-2000-00038, Stage II, DAMS - SDD Page 36 thru 38 of 109			
Comment:				

57. Several of the definitions mention that the source for the "approved" list of contaminated waste constituents, contaminated waste constituent types, digface object types, hazardous waste constituents, radioactive waste constituent, secondary waste object type, and valid identifiers/names for both the Stage II Storage Facility and Waste Container Storage Facility "must be identified and agreed to by all appropriate parties". Please clarify what is meant by such statements. Also, explain the difference between the "Stage II Storage Facility" and the "Waste Container Storage Facility" given that only a single CERCLA storage facility is planned.

Response by Jim Rose. For clarity we recommend the quotation marks around the word "approved" in "NOTE: ....." be removed in each case in Section 2.3.2.2.3. The subject note was added to some of the definitions in this section specifically to accentuate the need for fixed, agreed to data sets at the outset of the software design. Since portions of the DAMS are built around these data sets, late changes to any of them can have a very large impact on product quality, its cost and schedule to implement. Also, we do not see any reference to "Waste Container Storage Facility" in this section. However, since there is indeed only one "Stage II Storage Facility" planned we recommend doing a search and correcting any discrepancies found.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3157
Document:	Binder XVI-A MHC	Category: Unspecified		
Location:	EDF-ER-109, INEEL/EXT-99-01249, Stage II, MHC Glovebox Operating Scenarios for Processing Waste General			
Comment:				

58. Despite compatibility testing between loads, it may or may not be appropriate to completely fill a drum with separate integrated transfer module (ITM) loads since "separation of waste from waste" is viewed as RCRA treatment (i.e., it does not seem that compatibility testing should be the sole threshold criterion for combining waste into a single drum).

Response by Brent Burton. We recommend not making a change to this EDF in response to the comment. The compatibility testing and any associated waste "separation" are required/unavoidable and must be performed regardless of LDR/RCRA treatment considerations in the MHC.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3158**
Document:	Binder XVII SHC	Category: Unspecified		
Location:	SHC Interim Change Log, 30% - 90% Design Change No. 2f			
Comment:				

59. Please provide more explanation as to why the fissile monitor was deleted at the SHC. At one time there was concern that small amounts of waste would be vacuumed leaving the possibility that 1.6 kg of plutonium could be accumulated in a container (refer to Binder 10 MHC 30% design closeout final resolution).

Response by Kevin Croft. We recommend not pursuing the action implied in the comment. In a meeting held January 20, 2000, regarding this subject, Joseph T. Taylor of BBWI Criticality Safety stated that the current approach of monitoring soil at the digface, using the Digface Monitor, and limiting vacuumed soil to volume limited batch amounts containing less than the established 200 gram per drum limits of Plutonium is acceptable. He emphasized that the batch (or campaign) approach of soil retrieval satisfactorily prevents excessive amounts of waste from being vacuumed. Note that the soil drums will be monitored for criticality at the Drum Monitoring Station inside the EEF and will undergo an assay prior to storage.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3159**
Document:	Binder XX ERS (less ancillary)	Category: Unspecified		
Location:	SPC-148, Stage II, RES Page 18 of 79, Section 5.3.3			
Comment:				

60. In the context of contact-handled, "special items" should be defined as greater than or equal to 250 mR/hr. The remote excavator system (RES) should be capable of retrieving or handling essentially any item, including special items, within certain weight limitations.

Response by Daryl Lopez. We recommend incorporating the proposed change into the solution.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	**3160**
Document:	Binder XX ERS (less ancillary)	Category: Unspecified		
Location:	SPC-149, Stage II, Title I, ROCS Page 13 of 69, Section 5.3.2			
Comment:				

61. In the context of contact-handled, "special items" should be defined as greater than or equal to 250 mR/hr. The remote operated crane system (ROCS) should be capable of retrieving or handling essentially any item, including special items, within certain weight limitations.

Response by Daryl Lopez. We recommend incorporating the proposed change into the solution.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3161
Document:	Binder XXIV Cost and Schedule	Category: Unspecified	
Location:	Cost Estimate Support Data Recapitulation		
Comment:	Page 3 of 12, Item 4		

62. Please elaborate on the basis for the assumption that "any delay in completion of the Stage II design will add an average additional $5,000,000 per year of escalation". Does this same assumption apply should procurement and construction be put on hold after completion of the design?

Response by Dave Wilkins. We recommend revising Item 4 to include the basis for the escalation calculation and what phases of the project that are impacted.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3162
Document:	Binder XXIV Cost and Schedule	Category: Unspecified	
Location:	Cost Estimate Support Data Recapitulation		
Comment:	Page 5 of 12, Item 21		

63. An estimate should be provided for relocation of the Stage II facilities and equipment since relocation may occur as part of Stage II.

Response by Dave Wilkins: Assuming that "relocation" implies moving the Stage II retrieval facility to a new location following Stage II, this scope is not part of Stage II and would not be included in the RD/RA Work Plan. See also the response to comment 3135.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment # 3163
Document:	Binder XXIV Cost and Schedule	Category: Unspecified	
Location:	Cost Estimate Support Data Recapitulation		
Comment:	Page 7 of 12, Item 3		

64. IDEQ requests more detail on the shoring temperature bench scale piling test and cold test to be performed prior to installation of the sheet piling.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: An underground fire and/or explosion initiated by shoring pile installation is addressed in Appendix A to USQ Safety Evaluation No. SE-RWMC-99-039. (A copy was provided to the Agencies on 10/9/00.) We recommend adding this USQ to the RD/RAWP package. We also recommend providing additional detail on modeling to be performed, plans for cold testing, and measures planned during installation. Further, we recommend modifying the piling specification to indicate that the Project will provide direction (e.g. driving rates) for piling installation. We do not anticipate the need for design changes, but realize that procedures might have to be updated. [This is a consolidated response to comments 3130 (Binder V), 3163 (Binder XXIV), 3166 (Binder XXIV), 3211 (Binder I-A), and 3990 (Binder I-A).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? No	Comment #	3164
Document:	Binder XXIV Cost and Schedule	Category: Unspecified		
Location:	Baselined WBS			
Comment:	General			

65. The work breakdown structure (WBS) was prepared in November 1997 and some baseline assumptions have changed/evolved over time. IDEQ requests that the WBS be updated to reflect the current baseline assumptions (e.g., Stage III not necessarily a scaled up version of Stage II). Subsequently, the schedule should be updated in a corresponding manner as well with schedule assumptions and precedents clearly documented.

Response by Dave Wilkins. We recommend updating the WBS as proposed; the WBS and schedule should be updated as the project evolves.

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3165
Document:	Binder XXIV Cost and Schedule	Category: Unspecified		
Location:	90% Working Schedule Through Stage II			
Comment:	General			

66a. The timeframes presented in the Stage II schedule do not support the milestones dates established in the October 1997 OU 7-10 Remedial Design/Remedial Action Scope of Work and Remedial Design Work Plan or the OU 7-10 Stage I Work Plan (June 1998). Specifically, submittal of the draft Stage II Report to the Agencies in the fourth quarter of 2007 does not meet the primary milestone of April 2003.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting, DOE has submitted a request for extension (see EM-ER-188-00). This issue is under review by the three Agencies. [This is a consolidated response to comments 3113 (Binder I-A), 3165 (Binder XXIV), 3986 (Binder I-A), 3998 (Binder I-A), and 4040 (Binder XXIV).]

IDEQ	Reviewer: IDEQ Jean Underwood	Significant? Yes	Comment #	3166
Document:	Binder XXIV Cost and Schedule	Category: Unspecified		
Location:	90% Working Schedule Through Stage II			
Comment:	General			

66b. The USQ for sheet piling is shown to be completed in the fourth quarter of 2001. This USQ should have been completed as a component of the Stage II 90% RD/RAWP.

Response by Comment Processing CPT. Per the 10/3/00 Agency Face-to-Face Meeting: An underground fire and/or explosion initiated by shoring pile installation is addressed in Appendix A to USQ Safety Evaluation No. SE-RWMC-99-039. (A copy was provided to the Agencies on 10/9/00.) We recommend adding this USQ to the RD/RAWP package. We also recommend providing additional detail on modeling to be performed, plans for cold testing, and measures planned during installation. Further, we recommend modifying the piling specification to indicate that the Project will provide direction (e.g. driving rates) for piling installation. We do not anticipate the need for design changes, but realize that procedures might have to be updated. [This is a consolidated response to comments 3130 (Binder V), 3163 (Binder XXIV), 3166 (Binder XXIV), 3211 (Binder I-A), and 3990 (Binder I-A).]

IDEQ Reviewer: IDEQ Jean Underwood Significant? Yes Comment # **3167**
Document: Binder XXIV Cost and Schedule Category: Unspecified
Location: 90% Working Schedule Through Stage II
General
Comment:

66c. The FSAR needs to be identified as a secondary deliverable to the Agencies consistent with the document hierarchy presented in Binder I-A.

Response by Dave Wilkins. We recommend adding FSAR as a secondary deliverable as proposed by the reviewer.

IDEQ Reviewer: IDEQ Jean Underwood Significant? Yes Comment # **3168**
Document: Binder XXVI Project Management Docs Category: Unspecified
Location: PLN-666, Systems Engineering Management Plan
Appendix A
Comment:

67. Reference and summary of the April 2000 Agency meeting does not appear appropriate for inclusion in this document. Please delete.

Response by Vivienne Aho. We recommend incorporating the proposed change into the document. The cited information does not directly support the SEMP contents as presented.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3779**
Document: Binder XIV-B RAE Category: Technical
Location: Appendix B - Roof/Ceiling Design
P-B5/ General Comment
Comment:

105. Number beams that are being analyzed. Place member shapes designations on the calculation sheet (e.g., TS2x2x3/16).

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The referenced calculation sheet is for all the ceiling stiffener (minor) beams. Therefore, a specific beam number is not appropriate. The member shape is indicated by the input property dimensions and the calculation title that indicates a rectangular tube shape.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3780**
Document: Binder XIV-B RAE Category: Technical
Location: Appendix C - RAE Wall Design
Gen for computer model/ Elevat. sheets
Comment:

106. How are the connections made between the panels? If these members are supposed to be composite - a clear complete detail should be referenced. No detail is shown or reference made for connection of the panels on the Elevation sheets. Please provide connection details and the locations of each detail. [See Unique Comment # 3781 to XIV-C]

Response by Scott Jensen. The connection details are shown on drawing sheet S-41. We recommend adding a note to the wall detail elevation sheets to clarify the location of the details. [See also UCN 3781]

OU 7-10 Staged Interim Action Project, Stage II, Title II
Response Report - sorted by Unique Comment Number

Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3781**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings, Appendix C - Drawings			
Comment:	General for computer model/ Elevat. sheets			

106. How are the connections made between the panels? If these members are supposed to be composite - a clear complete detail should be referenced. No detail is shown or reference made for connection of the panels on the Elevation sheets. Please provide connection details and the locations of each detail. [See Unique Comment # 3780 to XIV-B]

Response by Scott Jensen. The connection details are shown on drawing sheet S-41. We recommend adding a note to the wall detail elevation sheets to clarify the location of the details. [See also UCN 3780]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3782**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheet S-21			

107. Section J is cut in the wrong place. It shows the HSS 2X2X3/16, which does not show up in the view of the section cut. Move Section J to the correct location on the drawing so that it reflects what elements are located where the section is cut.

Response by Scott Jensen. We recommend moving section J to a correct location.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3783**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix B - Roof/Ceiling Design			
Comment:	Page B31			

108. Provide section properties for the "Top Corner" section.

Response by Scott Jensen. The section properties are included in Appendix J. The Top Corner is two C12x20.7 It consists of the horizontal C12 in the wall panel and the vertical C12 in the ceiling panel.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3784**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix A - RAE Loading Calculation			
Comment:	P-B7 General			

109. Do the shapes shown on the detailed component list reflect the final designed and detailed structure?

Response by Scott Jensen. It is assumed that reviewer means sheets A-2 through A-13. There may be some minor differences but these sheets were used as a check on weight and center of gravity output for the 3-D model and there is reasonable agreement between the two.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3785**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix C - RAE Wall Design			
Comment:	P-C-6 Sheet S-6			

110. There is no callout for members 531, 533 (Panel 3, S-7) and members 536, 534 (Panel 2, S-6). Please correct. [See Unique Comment # 3786 to XIV-C]

Response by Scott Jensen. We recommend that the member callout (HSS 4x4x3/16) be added to drawings S-6 and S-7. [See also UCN 3786]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3786**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings, Appendix C - Drawings			
Comment:	P-C-6 Sheet S-6			

110. There is no callout for members 531, 533 (Panel 3, S-7) and members 536, 534 (Panel 2, S-6). Please correct. [See Unique Comment # 3785 to XIV-B]

Response by Scott Jensen. We recommend that the member callout (HSS 4x4x3/16) be added to drawings S-6 and S-7. [See also UCN 3785]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3787**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix C - RAE Wall Design			
Comment:	Page C-67, Sheet S-2			

111. Where is the design for mezzanine support channel? (Members 462, 464, 460, 457, 452, 449, 447, 444, 439, 436, 434, 431). [See Unique Comment # 3788 to XIV-C]

Response by Scott Jensen. The mezzanine plan and details are on drawing sheet S-32. We recommend improving the cross referencing between S-32 and other drawings in the package. [See also UCN 3788]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3788**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings, Appendix C - Drawings			
Comment:	Page C-67, Sheet S-2			

111. Where is the design for mezzanine support channel? (Members 462, 464, 460, 457, 452, 449, 447, 444, 439, 436, 434, 431). [See Unique Comment # 3787 to XIV-B]

Response by Scott Jensen. The mezzanine plan and details are on drawing sheet S-32. We recommend improving the cross referencing between S-32 and other drawings in the package. [See also UCN 3787]

OU 7-10 Staged Interim Action Project, Stage II, Title II
Response Report - sorted by Unique Comment Number

Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3789**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheet S-2			

112. Does channel for mezzanine support connect to the cross braces?

Response by Scott Jensen. No. We recommend clarifying the detail for connection of the channel and adding a detail, probably on S-40, with a reference to S-32.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3790**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix C - RAE Wall Design			
Comment:	Page C-114, Sheet S-15			

113. Member 210 shows HSS 3X3X3/16, drawings S-15 show HSS 2X2X3/16. Please clarify. [See Unique Comment # 3791 to XIV-C]

Response by Scott Jensen. We recommend that drawing S-15 be corrected. The member is a HSS 3x3x3/16. [See also 3791]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3791**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings, Appendix C - Drawings			
Comment:	Page C-114, Sheet S-15			

113. Member 210 shows HSS 3X3X3/16, drawings S-15 show HSS 2X2X3/16. Please clarify. [See Unique Comment # 3790 to XIV-B]

Response by Scott Jensen. We recommend that drawing S-15 be corrected. The member is a HSS 3x3x3/16. [See also 3790]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3792**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	General			

114. Show 'back' of channel - dotted - to make sure the orientation of the channel is correct to the fabricator.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The orientation is shown on section and details. A dotted line at the scale at which most of the drawings are made would not show in the plots as anything other than a thickened line.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3793
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheet S-16 East Wall Panel 3, Framing Ext Elev			
Comment:				

115. How will the HSS2X2X3/16 and HSS4X4X3/16 be connected? Is there an interference problem?

Response by Scott Jensen. Typical connection details are shown on S-43.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3794
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix C - RAE Wall Design P-C-186 Sheet S-10/S-13			
Comment:				

116. West Wall Panel 1and 4, Framing Exterior Elevation, two diagonal members HSS 2x2x3/16 (between 3'-0" and 8'-0" from the elevation base) are shown on the drawings; however, they are not shown on the computer model sketch and are not designed with the rest of the structure. The beam offset in the same general location is not shown in the computer model. This should be checked to make sure that the HSS 2x2x3/16 shown to support these members is still adequate. [See Unique Comment # 3795 to XIV-C]

Response by Scott Jensen. We recommend deleting the diagonal members from S-10 and S-13 since the structure is adequate without them. [See also UCN 3795]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3795
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings, Appendix C - Drawings P-C-186 Sheet S-10/S-13			
Comment:				

116. West Wall Panel 1and 4, Framing Exterior Elevation, two diagonal members HSS 2x2x3/16 (between 3'-0" and 8'-0" from the elevation base) are shown on the drawings; however, they are not shown on the computer model sketch and are not designed with the rest of the structure. The beam offset in the same general location is not shown in the computer model. This should be checked to make sure that the HSS 2x2x3/16 shown to support these members is still adequate. [See Unique Comment # 3794 to XIV-B]

Response by Scott Jensen. We recommend deleting the diagonal members from S-10 and S-13 since the structure is adequate without them. [See also UCN 3794]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3796
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix E - RAE South Upper Platform (Mezzanine) Sheet E-5 and E-8			
Comment:				

117. Show dimensions on this plan for verification of design parameters.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The dimensions should be verified by looking at Appendix J and not by dimensions placed on these sheets.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3797**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix G - Miscellaneous Calculations			
Comment:	General			

118. Provide sketch to show location and intent of design for each grouping of calculations.

Response by Scott Jensen. Many of the calculations are general in nature and sketches for location would not be useful. We recommend clarifying the grouping of the calculations.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3798**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix C - RAE Wall Design & Appendix G - Miscellaneous Calculations			
Comment:	East and West wall Calculations			

119. After reviewing the east and west wall calculations and model input, the reviewer could not determine if the loading from the crane system has been incorporated in to the wall design. If this was not incorporated - it should be. There are nodes in the model apparently for this purpose. Please show that the loads were applied to the structure via a diagram from the computer model and show that the loads were applied to the structure through the "loads applied" section of the input for the computer model.

Response by Scott Jensen. Crane loads were included in the model. We recommend adding appropriate diagrams to Appendix J.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3799**
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix G - Miscellaneous Calculations			
Comment:	Sheet G-2, G-3 and G-4			

120. Crane runway girders should be designed as continuous members. The authors assumption of the concentrated load doesn't move is not correct - it is stated in the description that the beam analyzed is the Main Crane Runway Beam.

Response by Scott Jensen. We recommend incorporating the proposed change. These sheets were used for preliminary sizing of the girder and as a check for the 3-D model. The referenced assumption was included by mistake and was not really used as a design assumption.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3800**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings			
Comment:	Sheet S-18 Interior Elevation P			

121. A WT10.5X22 was used in the computer model; however, this section was not detailed on the drawings. It was built up from individual plates. Please clarify.

Response by Scott Jensen. A WT10.5X22 was used to simplify the modeling process and as a design basis. The stainless plate built-up section has equal or better section properties and is therefore okay.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3801
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix G - Miscellaneous Calculations		
Comment:	Sheet G-30		

122. Where is this member detailed on the Main Crane Girder Runway? There is no reference to this member size on sheet S-18 of the drawing set. Please clarify the size of the beam that the author intends to put on the drawings.

Response by Scott Jensen. We recommend changing the sheet to show a W8x24 member.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3802
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings		
Comment:	Sheet S-18 Interior Elevation P		

123. Where is the calculation for the connections of the 1) W8x24 crane runway girder to the support beam (WT in the calcs or built up plates on the drawings) and 2) built up plates to the column HSS 4X4X3/8? This calculation is critical for the support of the crane.

Response by Scott Jensen. We recommend adding calculations to the Miscellaneous Calculations in Appendix G as referenced in comment 3801.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3803
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix G - Miscellaneous Calculations		
Comment:	Sheet G-23 through G-31		

124. Does the AISC ASD Steel Framed Connection Check/Design spreadsheet check the Web Tearout or Block Shear capacity of the coped members?

Response by Scott Jensen. We recommend verifying that the spreadsheet checks this (or that it has been checked by other means).

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3804
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings		
Comment:	Sheet S-38 Section AM		

125. How thick is the connection plate? Is the plate on one side of the connection or two?

Response by Scott Jensen. We recommend adding the thickness of the connection plate to the referenced detail.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3805
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix G - Miscellaneous Calculations			
Comment:	Sheet G-37			

126. The design criteria states that AISC ASD will be used to design the structure. LRFD was not mentioned.

Response by Scott Jensen. We recommend redoing the calculation per ASD.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3806
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix F - MHC Support Frame Design/ Drawings			
Comment:	Sheet F-2 through F-6/S-31			

127. The computer model shows cross members (members 35, 36 and 37) between the W8x10s along the top of the structure. The drawings do not depict the same. How will lateral support of the frame and lateral load transfer to the frame below be achieved? [See Unique Comment # 3807 to XIV-C]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3807, 3812, and 3813]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3807
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings			
Comment:	Sheet F-2 through F-6/S-31			

127. The computer model shows cross members (members 35, 36 and 37) between the W8x10s along the top of the structure. The drawings do not depict the same. How will lateral support of the frame and lateral load transfer to the frame below be achieved? [See Unique Comment # 3806 to XIV-B]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3812, and 3813]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3808
Document:	Binder XIV-B RAE	Category: Technical		
Location:	Appendix F - MHC Support Frame Design/ Drawings			
Comment:	Sheet F-4 and F-7/S-31			

128. Member 38 in the computer model does not agree with the isometric view on Sheet S-31. The model shows a TS4x4x1/4 and the drawings show HSS 2x2x3/16. There is a discrepancy here. Please clarify. [See Unique Comment # 3809 to XIV-C]

Response by Scott Jensen. We recommend correcting the isometric view. [See also UCN 3809]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # **3809**
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings Sheet F-4 and F-7/S-31		
Comment:			

128. Member 38 in the computer model does not agree with the isometric view on Sheet S-31. The model shows a TS4x4x1/4 and the drawings show HSS 2x2x3/16. There is a discrepancy here. Please clarify. [See Unique Comment # 3808 to XIV-B]

Response by Scott Jensen. We recommend correcting the isometric view. [See also UCN 3808]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # **3810**
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix F - MHC Support Frame Design/ Drawings Sheet F-4 and F-7/ S-31		
Comment:			

129. Provide connection calculations. Are gusset plates required to connect cross members to the frames? Provide information on the drawing in order to facilitate detailing (x, y, z, Forces and x, y, z Moments if the connections are not to be designed). [See Unique Comment # 3811 to XIV-C]

Response by Scott Jensen. We recommend improving the connection details and providing calculations as necessary to support the details. [See also UCN 3811]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # **3811**
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings Sheet F-4 and F-7/ S-31		
Comment:			

129. Provide connection calculations. Are gusset plates required to connect cross members to the frames? Provide information on the drawing in order to facilitate detailing (x, y, z, Forces and x, y, z Moments if the connections are not to be designed). [See Unique Comment # 3810 to XIV-B]

Response by Scott Jensen. We recommend improving the connection details and providing calculations as necessary to support the details. [See also UCN 3810]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # **3812**
Document:	Binder XIV-B RAE	Category: Technical	
Location:	Appendix F - MHC Support Frame Design/ Drawings Sheet F-4 and F-7/ S-31		
Comment:			

130. Provide adequate lateral support for the W8x10 at the top of the MHC' Support. [See Unique Comment # 3813 to XIV-C]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3807, and 3813].

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3813**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings, Appendix F - MHC Support Frame Design/ Drawings			
Comment:	Sheet F-4 and F-7/ S-31			

130. Provide adequate lateral support for the W8x10 at the top of the MHC' Support. [See Unique Comment # 3812 to XIV-B]

Response by Scott Jensen. The cross members are part of the MHC framing and become part of the support frame when the MHC is connected to the RAE. [See also UCN 3806, 3807, and 3812.]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3814**
Document:	Binder XVI-A MHC	Category: Technical		
Location:	MHC Drawings/MHC/SHC Structural Calculations EDF			
Comment:	Dwg MH-101 (Sheet 1 of 4)/Page 23			

131. Verify model and update drawings to represent information that reflects design cases. (The angle sizes at the corners of the structure shown in the computer model do not agree with the drawings.) [See UCN # 3815 to XVI-B]

Response by Scott Jensen. We recommend changing the MHC drawings to indicate a L4x3x3/8 angle at the top of the structure shown on Dwg MH-101 sheet 1. [Same response for UCN 3814 and 3815]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3815**
Document:	Binder XVI-B MHC	Category: Technical		
Location:	MHC Drawings/MHC/ SHC Structural Calculations EDF			
Comment:	Dwg MH-101 (Sheet 1 of 4)/Page 23			

131. Verify model and update drawings to represent information that reflects design cases. (The angle sizes at the corners of the structure shown in the computer model do not agree with the drawings.) [See Unique Comment # 3814 to XVI-A]

Response by Scott Jensen. We recommend changing the MHC drawings to indicate a L4x3x3/8 angle at the top of the structure shown on Dwg MH-101 sheet 1. [Same response for UCN 3814 and 3815]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3816**
Document:	Binder XVI-A MHC	Category: Technical		
Location:	MHC Drawings/MHC/SHC Structural Calculations EDF(A			
Comment:	Dwg MH-101 (Sheet 1 of 4)/Gen Calc. Note			

132. Have the welded joints been verified such that the weld indicated will be adequate? No calculation(s) were found in the EDF. [See Unique Comment # 3817 to XVI-B]

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3817
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC Drawings/MHC/SHC Structural Calculations EDF(A		
Comment:	Dwg MH-101 (Sheet 1 of 4)/Gen Calc. Note		

132. Have the welded joints been verified such that the weld indicated will be adequate? No calculation(s) were found in the EDF. [See Unique Comment # 3816 to XVI-A.]

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3818
Document:	Binder XVI-A MHC	Category: Technical	
Location:	MHC Drawings		
Comment:	Dwg MH-100		

133. Call out member size for beam at el. 56.00 on long face elevation view, top plan and bottom plan.

Response by Scott Jensen. We recommend clarifying the callout of member sizes on the drawing.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3819
Document:	Binder XVI-A MH[illegible]	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix B)		
Comment:	Crane Load Sheet		

134. Were the lateral loads from the crane calculations applied to the frame? Were the correct loads (vertically) applied to the structure?

Response by Scott Jensen. The answer to both questions is yes. See model input data in Appendix B of Binder XVI-B.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3820
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix B)		
Comment:	General Comment		

135. Provide calculations for the welds shown on the drawings. Are the welds shown adequate? Additional weld symbols are needed to show how the structure is to be connected.

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3821
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix B)		
Comment:	General Comment-Steel Plate Calculations		

136. The steel plate calculations become inaccurate when the deflections are greater than one-half of the thickness of the plate. The designer should use a thicker plate and revise the calculations.

Response by Scott Jensen. The inaccuracy of these results is not significant to the design. The stresses could be off by a factor of about 3 and still have a safe design. For this reason we recommend not changing the document.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3822
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix B)		
Comment:	General Comment-Steel Frame Calculations		

137. What is the difference between the two Steel Design Reports that are shown in this EDF? In the first report some of the members fail, in the second report everything is OK. Please clarify.

Response by Scott Jensen. One report looks at governing load combinations that include earthquake loads. The other report looks at governing load combinations that do not include earthquake loads. As indicated in page 7 of the EDF the failure criteria is demand to capacity ratios less than 1.0 for load combinations that do not include earthquake loads and 1.33 for load combinations that do include earthquake loads. None of the members fail based on this failure criteria. For this reason we recommend not pursuing the action proposed in the comment.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3823
Document:	Binder XVI-B MHC	Category: Technical	
Location:	MHC/SHC Structural Calculations EDF (Appendix B)		
Comment:	General Comment-Steel Frame Calculations		

138. Provide connection calculations, especially for the crane attachment to the structure.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The bridge crane beam connection details can not be designed until the crane is designed by its supplier. The supplier will provide the necessary information. [Same response for UCN 3823 and 3824]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3824
Document:	Binder XVI-A MHC	Category: Technical	
Location:	MHC Drawings		
Comment:	General Comment-Crane Drawing MH-140		

139. Provide connection details for connecting the bridge crane beams to the structure.

Response by Scott Jensen. We recommend not pursuing the action proposed in the comment. The bridge crane beam connection details can not be designed until the crane is designed by its supplier. The supplier will provide the necessary information. [Same response for UCN 3823 and 3824]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3825
Document:	Binder XVI-B MHC	Category: Technical		
Location:	MHC/SHC Structural Calculations EDF (Appendix C)			
Comment:	General Comment-Steel Frame Calculations			

140. Designer should not detail overstressed members. Refer to page 32 of "Steel Design Report Checking SHC to ASD Code".

Response by Scott Jensen. The members are not overstressed. See the SHC design summary on page 8 of the EDF. The demand to capacity ratio of members can be as high as 1.33 for load combinations that include earthquake loads.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3826
Document:	Binder XVI-B MHC	Category: Technical		
Location:	MHC/SHC Structural Calculations EDF (Appendix C)			
Comment:	General Comment-Steel Frame Calculations			

141. Provide connection calculations.

Response by Scott Jensen. As the note on the referenced drawings indicates, the joints are made full penetration welds or fillet welds that are as large as is permitted. This will result in weld section properties equivalent to the member section properties. Therefore, if the member stresses are okay the weld stresses are okay since the weld material is as strong or stronger than the base metal. No calculations are necessary to verify this. [Same response for UCN 3816, 3817, 3820, and 3826]

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3827
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			
Comment:	S-03300-2 of 15 Lines 1 through 22			

142. Additional concrete references should be noted to provide adequate quality assurance: ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete -- ACI 308 Standard Practice for Curing Concrete -- ASTM C94 Specification for Ready Mixed Concrete -- ASTM C173 Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method -- ASTM C231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method -- ASTM D1751 Specifications for Preformed Expansion Joint Filler for Concrete Paving and Structural -- Construction -- ASTM D1752 Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete -- Paving and Structural Construction

Response by Dave Stephens. At least two of these references are already invoked. It is recommended that others be added as applicable.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3828**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-03300-4 of 15 line ~21

143. Add to spec - Store admixtures in a manner to prevent contamination, evaporation, moisture penetration or damage. Do not use products, which have been stored longer than 6 months.

Response by Dave Stephens. It is recommended that this be added to a general "Delivery, Storage, and Handling" section added after "Quality Control" section.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3829**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-04220-1of 8 line 24

144. Specification should list ACI 530.1 Specification for Masonry Structures as masonry code.

Response by Dave Stephens. It is recommended that ACI 530.1 be listed as stated in this comment.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3830**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-04220-2 of 8 line 18

145. ACI 531 does not exist. Should it be ACI530.1?

Response by Dave Stephens. It is recommended that this typo be corrected.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3831**
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical		
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction			

Comment: S-05060-2 of 8 line 42

146. Under Quality Control, Codes and Standards Regulatory Requirements, should the AWS D1.1 Structural Welding Code and INEEL Welding Manual be cited?

Response by Dave Stephens. It is recommended that the reference currently under the Quality Control Section be removed. This reference and the two cited in the comment are already invoked on page 05060-1.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3832

Document: Binder XXIII-A 100% Final Storage Bldg Part 1 | Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

Comment: S-05060-5 of 8 line 7

147. Under PART 2 PRODUCTS, what type of welding electrode is to be used? Low hydrogen electrodes for field welding?

Response by Dave Stephens. It is recommended that types of acceptable welding electrodes be added.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3833

Document: Binder XXIII-A 100% Final Storage Bldg Part 1 | Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

Comment: S-05400-2 of 3 lines 7 - 10

148. The only metal studs that are noted on the drawings are 6" metal studs at the Electrical/Fire Riser Rooms. Please correct the callout in the drawings or specs.

Response by Dave Stephens. It is recommended that the specification be corrected to reflect 6 inch studs.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3834

Document: Binder XXIII-A 100% Final Storage Bldg Part 1 | Category: Technical

Location: SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction

Comment: S-13120-5 of 10 lines 26 and 27

149. The 18,000 lb. Per column loading does not concur with Note 4 on Sheet S-6. Consider structurally isolating the rigid mezzanine from the flexible metal building to avoid impacting the response to the metal building under lateral loading.

Response by Dave Stephens. It is recommend that the note on S-6 and the statement in the specification be made to agree. Impact to metal building from rigid mezzanine has been previously considered and shown to be negligible.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3835
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-13120-5 of 10 line 31

150. Lateral Deflection should be changed to lateral deflection of building frames or drift.

Response by Dave Stephens. It is recommended that "Lateral Deflection" be changed to "Lateral deflection of building frames (Story drift)".

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3836
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	SPC-186, AE Construction Specification, WMF-669 OU7-10 Storage Facility, Approved For Construction		

Comment: S-13120- General

151. Piping loads should be transmitted to metal building manufacturer. Please clearly define what is provided under this Section. Under "Section Includes", several items are listed only as "installation of ..." Please clarify the items that are to be furnished and furnished and installed. Are these items listed in Section 13120? It is not clear from the text who will supply these items.

Response by Dave Stephens. Piping loads are covered under collateral loading specification on page 13120-5. It is recommended that the word "installation o, ' be removed from the "Section Includes" list. This should be sufficient clarification since the Summary first paragraph states that the subcontractor shall both furnish and install a complete metal building system as specified by the specs and drawings.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3837
Document:	Binder XXIII-A 100% Final Storage Bldg Part 1	Category: Technical	
Location:	Drawings		

Comment: ~~Dwg511145 A-2~~

152. Are there girts or studs in walls of doorways as shown in detail 1? Clearly define what is provided by Subcontractor vs. Metal Building System.

Response by Dave Stephens. It is recommended that the part of the callout that mentions girts be clarified to reflect connection to the metal building girt near the top of the awning. Typically the lowest girt occurs within 8 ft of the finished floor.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3838
Document: Binder XXIII-A 100% Final Storage Bldg | Category: Technical
Location: Part 1
Drawings
~~Dwg511145S-6~~
Comment:

153. What Live Load was the Mezzanine designed for? This information is not stated on Dwg T-2 (location of the General Notes) or Dwg. S-6 (location of Mezzanine plan). Is deck able to withstand clear span (shored or unshored) in single span (wet concrete) condition? Calculations should be provided. Provide for large pipe opening (additional reinforcement - if required).

Response by Dave Stephens. It is recommended that a note be added that specifies the size and type of composite concrete deck, shoring conditions, and lists the minimum capacity.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3839
Document: Binder XXIII-A 100% Final Storage Bldg | Category: Technical
Location: Part 1
Drawings
~~Dwg511154 S-6~~
Comment:

154. L8x8x1/2 Slab closure angle will protrude 1" above the top of slab - Is this the intent? Sections P, R and T show the angle top flush with the top of the slab - please clarify.

Response by Dave Stephens. Angle will protrude 1/2" above top of slab. It is recommended that the drawing be revised to reflect this.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3840
Document: Binder XXIII-A 100% Final Storage Bldg | Category: Technical
Location: Part 1
Drawings
~~Dwg511154 S-6~~
Comment:

155. Section U - What size is bearing plate? Provide bond beam detail.

Response by Dave Stephens. The size of the bearing plate will be determined as stated in note 2. It is recommended that an indication as to where bond beams are to be located be added to the drawing. Details are included in the specification.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # 3841
Document: Binder XXIII-A 100% Final Storage Bldg | Category: Technical
Location: Part 1
Drawings
~~Dwg511151 S-3~~
Comment:

156. Section B - Will control joint have sealant in the joint?

Response by Dave Stephens. Yes. The concrete specification specifies this.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3842**

Document: Binder XXIII-B 100% Final Storage Facility Part 1 Category: Technical

Location: EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design

Comment: ~~1997 UB S Seismic Equations Sprdsht~~

157. Seismic dead load is not calculated. Also other possible contributors to the seismic dead load need to be checked. See UBC-97.

Response by Dave Stephens. Recommend showing in greater detail how dead load is calculated for seismic calculations. Also, it is recommended to review other possible contributors to seismic dead load.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3843**

Document: Binder XXIII-B 100% Final Storage Facility Part 1 Category: Technical

Location: EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design

Comment: ~~Summary of 'On Grade Floor Slab" Design Calcs.~~

158. What is load on the slab that the allowable is compared to? A calculation should be preformed to show the anticipated loadings on the floor so that the allowable values can be verified as acceptable.

Response by Dave Stephens. It is recommended to state what the maximum expected design load is so this may be compared to allowable.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3844**

Document: Binder XXIII-B 100% Final Storage Facility Part 1 Category: Technical

Location: EDF-1139, OU 7-10 Stage II WMF-669 Storage Facility Structural Design

Comment: ~~Summary of 'On Grade Floor Slab" Design Calcs.~~

159. "Slab on Grade Reinforcement Calculations" According to ACI 318 A3.2 the allowable tensile stress reinforcement is 24,000 psi not 30,000 psi.

Response by Dave Stephens. It is recommended that the allowable stress be changed to 24 ksi.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3845**

Document: Binder XIII EEF Footings Category: Technical

Location: EEF FOOTINGS

Comment: S-1

160. The overall building dimensions are incorrect.

Response by Dave Stephens. We recommend that the dimensions be corrected.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3846**
Document:	Binder XIII EEF Footings	Category: Technical		
Location:	EEF FOOTINGS			
Comment:	S-1			

161. Note 3 should state that additional reinforcement for handling and erection shall be added - if required-by the Subcontractor.

Response by Dave Stephens. We recommend modifying the drawing and/or specification to address the potential for and responsibility for additional reinforcement for handling special handling inserts, rigging, or etc.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3847**
Document:	Binder XIII EEF Footings	Category: Technical		
Location:	EEF FOOTINGS			
Comment:	S-1			

162. The typical reinforcement specified in Note 3 does not include any steel for the vertical faces, and is probably not appropriate for pieces such as K and T. Typical reinforcement details for different block geometry's are recommended.

Response by Dave Stephens. It is recommended that reinforcement details be added for the various block geometries.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3848**
Document:	Binder XIV-A RAE	Category: Other (clarification/wording)		
Location:	RAE			
Comment:	General, S-01522			

163. The scope of work under this Section is not clear. Are enclosures a project requirement, or for contractor convenience? If they are a project requirement, what is the intent? Is the RAE to be erected within an enclosure? Is heating and lighting required? How does the work get staged (crane access, etc.)? When does the enclosure get removed?

Response by Scott Jensen. They are for both. The extent of the required enclosures and the need for heating and lighting are dependent on the Subcontractors schedule for the work. Coordination with the EEF enclosure also impacts the scope of this effort. The scope may be clarified to some extent when the bid packages are finalized.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3849**
Document:	Binder XIV-A RAE	Category: Technical		
Location:	RAE			
Comment:	P-3 S-05100			

164. Under "Shop Painting", delete "Joists and Accessories" and include references to Painting Sections 09800 and 09900 for work limits. Also, refer to Painting Sections 09800 and 09900 for coating thicknesses and surface preparation.

Response by Scott Jensen. We recommend deleting the referenced paragraphs and retaining the shop painting paragraphs on the following page.

OU 7-10 Staged Interim Action Project, Stage II, Title II
Response Report - sorted by Unique Comment Number

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3850**
Document:	Binder XIV-A RAE	Category: Other (clarification/wording)		
Location:	RAE			
Comment:	P-5 S-05100			

165. Under "Surveys," should steel fabrication be deferred until the adjustments have been made? This would prevent the need to rework fabricated steel. The text implies that "Corrections" are the subcontractor's responsibility and "Compensating Adjustments" are to be reimbursed, perhaps by change order. Is this the intent? Please clarify.

Response by Scott Jensen. We recommend adding wording to require field verification of the pile support locations prior to fabrication of members that may be impacted by deviations from dimensions as shown on the drawings.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3851**
Document:	Binder XIV-A RAE	Category: Technical		
Location:	RAE			
Comment:	P-5 S-05100			

166. Under "Touch-up Painting," include Section 09800.

Response by Scott Jensen. We recommend adding 09800 to the sentence.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3852**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE			
Comment:	Sheet A-4			

167. X-references to platform structural drawings are incorrect.

Response by Scott Jensen. This comment applies to Binder XIV-C RAE. We recommend correcting S-41 and S-42 cross references.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3853**
Document:	Binder XVI-C RAE	Category: Technical		
Location:	RAE			
Comment:	Sheet A-1			

168. Note 4 implies that structural steel connection designs and details will be developed by the Subcontractor as a performance item. If this is the intent, the performance design requirements and submittal requirements should be clearly specified in Section 05100. Sheets S-37 through S-42 show "Typical Connection Details." Are these considered to be fully detailed, or guidelines? The connection design responsibilities require clarification. [See also UCN # 3866.]

Response by Scott Jensen. We recommend deleting note 4 from A-1. (See the response to comment 3866.)

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3854**
Document: Binder XIV-C RAE Category: Technical
Location: RAE Drawings
Comment: Sheet S-1

169. The cumulative dimensions of the guard rail sections are not compatible with the dimensions of the typical corner railing detail. Suggest changing indicated dimensions to "Field Measure."

Response by Scott Jensen. We recommend correcting the dimensions and adding a note to field verify the shoring dimensions prior to fabrication of the railings.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3855**
Document: Binder XIV-C RAE Category: Other (clarification/wording)
Location: RAE Drawings
Comment: Sheet S-2

170. The south and east elevations include more bays of vertical bracing at upper level(s) than at the base. Please explain.

Response by Scott Jensen. Lower locations had areas of interference that did not allow bracing at to be placed there.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3856**
Document: Binder XIV-C RAE Category: Other (clarification/wording)
Location: RAE Drawings
Comment: Sheet S-4

171. Callout for 3/8-inch floor plate points to open floor area on south side of pit.. Move arrow line to plated floor area.

Response by Scott Jensen. We recommend moving the callout arrow.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3857**
Document: Binder XIV-C RAE Category: Other (clarification/wording)
Location: RAE Drawings
Comment: Sheet S-5

172. Is a predetermined amount of compression required to create a seal with the sponge rubber? Is field welding prohibited in the connections immediately above the seal (to prevent melting)? Whereas fit-up tolerances will be very difficult here, these requirements should be clarified.

Response by Scott Jensen. The seal was designed to work with compression provided by the weight of the RAE. We recommend changing the detail to prevent melting of the seal.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3858**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheets S-6 - S-17			
Comment:				

173. The working points for the vertical bracing, and the resulting joint configurations, are shown inconsistently. Refer to Sheet S-43 for the typical joint configuration.

Response by Scott Jensen. Agree that the views should look more like S-43 configuration. We recommend evaluating the drawings will be considered and changing them as necessary.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3859**
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings Sheet S-18			
Comment:				

174. The design of the RAE implies that it will be relocated as a complete unit. Is it also required that the panelized assemblies be removable in sections? If so, a revised crane runway bracket should be considered.

Response by Scott Jensen. Removing the panels without cutting of the liner plate or features such as the runway bracket is not required.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3860**
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings Sheet S-24			
Comment:				

175. Are washers and nuts required to compress the seal at Section T?

Response by Scott Jensen. At least a nut is required. We recommend adding a callout for the nut and possibly a washer.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3861**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheet S-31			
Comment:				

176. In Section D, south beam callout W21 x 44 conflicts with framing plan Sheet S-3 (W16 x 36).

Response by Scott Jensen. We recommend changing the callouts on S-3. The callout on S-3 is incorrect. The north beam on S-3 should be a W21x44 and the south beam on S-3 should be a W16x36. [See also UCN 3862].

OU 7-10 Staged Interim Action Project, Stage II, Title II
Response Report - sorted by Unique Comment Number

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3862**
Document:	Binder XIV-C RAE	Category: Unspecified		
Location:	RAE Drawings Sheet S-31			
Comment:				

177. In enlarged plan, north beam callout W21 x 44 conflicts with framing plan (W16 x 36).

Response by Scott Jensen. We recommend changing the callouts on S-3. The callout on S-3 is incorrect. The north beam on S-3 should be a W21x44 and the south beam on S-3 should be a W16x36. [See also UCN 3861].

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3863**
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings Sheet S-31			
Comment:				

178. Review Weld Symbols vs. Joint Geometry; e.g., in Detail 20, A 4 in TS frames into a 4-in. flange. An all-around fillet weld is not appropriate.

Response by Scott Jensen. We recommend changing the weld symbol.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3864**
Document:	Binder XIV-C RAE	Category: Technical		
Location:	RAE Drawings Sheet S-32			
Comment:				

179. See previous comment on Sheets S-6 through S-17 concerning vertical bracing connection geometry. [Also see comment # 3858]

Response by Scott Jensen. We recommend evaluating a change. The joint geometry is not as important here since the floor plate will likely provide more strength and lateral stiffness than the diagonal members after the plate is in place.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3865**
Document:	Binder XIV-C RAE	Category: Other (clarification/wording)		
Location:	RAE Drawings Sheet S-32			
Comment:				

180. Is the floor plate to have a diamond pattern for safety?

Response by Scott Jensen. No. It will have paint with a grit added (See Binder XIV-A, RAE Spec 233, Section 09900).

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3866
Document:	Binder XIV-C RAE	Category: Technical	
Location:	RAE Drawings Sheets S-37 Through S-41		
Comment:			

181. See previous comment (Sheet A-1) concerning connection design responsibility. If the connections shown on these sheets are considered to be fully detailed, the following comments apply: A. What is the connection bolt type - SC, N, or X? B. If these are bearing bolts (Type N or X), is tensioning required? C. The AISC Standard detail for the outstanding legs of a "Flexible", one-sided connection is a 2-sided weld with a top return. (AISC P.4-84). [Also see UCN# 385.3]

Response by Scott Jensen. We recommend incorporating the proposed change. The bolt tensioning requirements should be clarified. They are currently included in the specification. However, a recent revision to the bolt installation standard referenced in the specification requires that additional information be provided on the drawings. We recommend modifying the weld symbol as necessary for the two options shown. (See response to UCN 3866)

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3867
Document:	Binder XXI Shoring	Category: Other (clarification/wording)	
Location:	Shoring P-3 S-02456		
Comment:			

182. Under "Environmental Requirements", no conditions are listed.

Response by Scott Jensen. We recommend deleting this heading from the specification

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment # 3868
Document:	Binder XXI Shoring	Category: Technical	
Location:	Shoring P-3 S-02456		
Comment:			

183. General: No driving tolerances are shown in specifications. (cut-off tolerances only are shown on drawings).

Response by Scott Jensen. Tolerances for the piles' horizontal positions are shown on the shoring drawing by pit dimensions. No driving tolerances for deviation from vertical orientation are provided because pulling and reinstalling a contaminated pile is not practical.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3869**
Document:	Binder XXI Shoring	Category: Technical		
Location:	EDF-ER-101, Stage II Title I OU 7-10 Shoring and Pile Foundation Design Calculations			
Comment:	General			

184. Page 1 indicates that Preliminary RAE loads have been used for pile design. On Page 6, an assumption has been made that the RAE loads will be uniformly distributed to the support piles. The calculated pile reaction of 45.5 KIP is close to the 25-ton pile working load. Please utilize final RAE support reactions (from Binder XIV-B) to confirm pile capacity.

Response by Scott Jensen. I do not understand where your 25-ton pile working load comes from. The allowable axial load on the H-piles as indicated in the calcs is about 95 kips and is based on a low compressive strength for the rock. The RAE support axial reactions are all well below the 95 kips.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3870**
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review			
Comment:	P-1 S-01005			

185. Under "Section Includes", clarify what is provided (i.e., furnished and installed) vs. what, if anything, is installed only.

Response by Dave Stephens. It is recommended to rework the "Section Includes" paragraph to ensure that there is no conflict with the previous paragraph which states that the subcontractor shall furnish and install all material, equipment, and supplies.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3871**
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review			
Comment:	S-02062			

186. No Demolition Drawings are included. What work is included under this Section?

Response by Dave Stephens. It is recommended that demolition be removed from the list of work included.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3872**
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review			
Comment:	S-02062			

187. What local, state, and federal regulations and standards are applicable to this work?

Response by Dave Stephens. There will be no significant demolition. The removal of rubbish and debris will be standard construction debris. There are no known local, state, or federal regulations that would apply to this kind of removal and disposal.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3873
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review S-02062			
Comment:				

188. Why is a Subcontractor's demolition plan not required as a submittal?

Response by Dave Stephens. This is all new construction. We recommend that "demolition" be removed from the list of work included in the specification.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3874
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-4 S-03300			
Comment:				

189. Under "Curing Compound" please be aware that all interior floor surfaces are epoxy-coated. Moist curing should be specified for these surfaces.

Response by Dave Stephens. It is recommended that the spec 03300 have language added to the curing section which specifies that concrete floors to receive epoxy coating must be moist cured.

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	3875
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-4 S-03300			
Comment:				

190. An under-slab vapor barrier is ordinarily required when barrier coatings such as epoxy are applied to slabs on grade. No vapor barrier is included in this Section

Response by Dave Stephens. Vapor barriers are of little value for slabs-on-grade in this part of Idaho.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	3876
Document:	Binder XXII Utility Building	Category: Quality		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05100			
Comment:				

191. Under "Quality Control", it is recommended that steel joists be provided by an SJI member company.

Response by Dave Stephens. It is recommended that the requirement for an SJI member company to provide the joists be added to the specification under Quality Control.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik	Significant? Yes	Comment #	**3877**
Document:	Binder XXII Utility Building	Category: Environmental		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310			
Comment:				

192. Under "Submittals", why are no shop drawings required? How is compliance going to be evaluated?

Response by Dave Stephens. It is recommended that shop drawings be added to the Submittals section.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3878**
Document:	Binder XXII Utility Building	Category: Quality		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310			
Comment:				

193. Under "Quality Control", it is recommended that roof deck be provided by a SDI member company

Response by Dave Stephens. It is recommended that the requirement for an SDI member company to provide the deck be added to the specification under Quality Control.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3879**
Document:	Binder XXII Utility Building	Category: Technical		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-2 S-05310			
Comment:				

194. Under "Materials", no galvanizing requirements (G-60 or G-90) are provided. Also, the material specification should be ASTM A611 GR C, D or E, or ASTM A653 Structural Quality Grade 33 or higher. An under-slab vapor barrier is ordinarily required when barrier coatings such as epoxy are applied to slabs on grade. No vapor barrier is included in this Section.

Response by Dave Stephens. We recommend that galvanizing requirements (G-90) be added to the specification. A vapor barrier is of no benefit in this geographic area.

EPA	Reviewer: EPA G. Garbacik	Significant? No	Comment #	**3880**
Document:	Binder XXII Utility Building	Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-3 S-05310			
Comment:				

195. Under "Roof Deck", coordinate deck profile with the information shown on the Drawings.

Response by Dave Stephens. We recommend that the deck profile information be coordinated between specification and drawings.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3881**
Document:	Binder XXII Utility Building		Category: Other (clarification/wording)		
Location:	SPC-202, AE Construction Specification, Stage II, WMF-670 Utility Building,Title II Review P-3 S-05310				
Comment:					

196. Under "Attachments", coordinate the deck fastening pattern with pattern shown on the Drawings.

Response by Dave Stephens. We recommend coordinating the deck fastening pattern between specification and drawing.

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3882**
Document:	Binder XXII Utility Building		Category: Unspecified		
Location:	EDF-1185, INEEL/EXT-99-01194, Stage II, WMF-670 Utility Building Structural Calculations Not indicated				
Comment:					

197. Provide calculation for support of joist reaction of 5.02 KIP if joist is aligned with 5/8_ anchor bolt (i.e., entire load carried by one anchor bolt). Consider effects of eccentricity (shear plus tension) on anchor bolt design.

Response by Dave Stephens. It is recommended that a review of the calculations be made and provide calculation for the combined loading of tension and shear on the anchor bolt.

EPA	Reviewer: EPA G. Garbacik		Significant? Yes	Comment #	**3883**
Document:	Binder XXII Utility Building		Category: Technical		
Location:	Drawings Sheet A-2				
Comment:					

198. Masonry control joints appear to be incompatible with wall reinforcing details (bond and lintel beam details). Control joints may not be required in a small building with heavily reinforced masonry, with exterior insulation.

Response by Dave Stephens. It is recommended that masonry control joints be deleted.

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3884**
Document:	Binder XXII Utility Building		Category: Other (clarification/wording)		
Location:	Drawings Sheet A-3				
Comment:					

199. Consider coordinating vertical spacing of bond beams and lintel beams. With so many bond beams, what is the purpose of joint reinforcement?

Response by Dave Stephens. It is recommended to delete the joint reinforcement from the specification and use only bond beams.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # **3885**

Document: Binder XXII Utility Building | Category: Other (clarification/wording)

Location: Drawings

Comment: Sheet A-5

200. Are all cells grouted, or only the reinforced cells?

Response by Dave Stephens. Only cells that have reinforcement are to be grouted. It is recommended to remove hatching from cells that are not reinforced.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # **3886**

Document: Binder XXII Utility Building | Category: Other (clarification/wording)

Location: Drawings

Comment: Sheet A-5

201. Coordinate Detail 1 angle size with structural drawings

Response by Dave Stephens. It is recommended that angle sizes be made to agree between drawings. [See also UCN 3895]

EPA | Reviewer: EPA G. Garbacik | Significant? Yes | Comment # **3887**

Document: Binder XXII Utility Building | Category: Technical

Location: Drawings

Comment: Sheet A-5

202. See previous comment on Sheet A-2 regarding masonry control joints. [198. Masonry control joints appear to be incompatible with wall reinforcing details (bond and lintel beam details). Control joints may not be required in a small building with heavily reinforced masonry, with exterior insulation.]

Response by Dave Stephens. It is recommended that masonry control joints be deleted.

EPA | Reviewer: EPA G. Garbacik | Significant? No | Comment # **3888**

Document: Binder XXII Utility Building | Category: Technical

Location: Drawings

Comment: Sheet S-1

203. Why does CMU wall dowel spacing not match CMU wall reinforcement spacing?

Response by Dave Stephens. It is recommended that note on Section B be made to read as it does on Section A. This note states that dowel reinforcing is to be continuous at 32" o.c. into masonry wall which matches wall reinforcement. Grade beam reinforcement is to be 16" o.c. It is also recommended to make all CMU wall reinforcement the same size (#4 bar).

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3889**
Document: Binder XXII Utility Building Category: Other (clarification/wording)
Location: Drawings
Sheet S-1
Comment:

204. Is slab-on-grade reinforcement intended to be bottom or mid-depth?

Response by Dave Stephens. Reinforcement is intended to be per ACI 318 provisions as called out in the specification (3 inches clear from bottom of slab for slabs cast against soil).

EPA Reviewer: EPA G. Garbacik Significant? Yes Comment # **3890**
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-1
Comment:

205. Generator pad vertical reinforcement legs have insufficient lap.

Response by Dave Stephens. It is recommended that the lap length be corrected on the drawing.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3891**
Document: Binder XXII Utility Building Category: Other (clarification/wording)
Location: Drawings
Sheet S-1
Comment:

206. Why do #4 dowels cross slab/wall isolation joints?

Response by Dave Stephens. It is recommended to remove #4 dowels so that slab/wall isolation joints function as intended.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3892**
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-2
Comment:

207. K-Joists are simple span. Therefore, the 8 joists south of the Generator Room have shorter spans than the remaining 4 joists. Why are all joists 16K6?

Response by Dave Stephens. Simplicity of uniform ordering and uniform size outweighs any minor cost savings by reducing joist depth for so few joists.

EPA Reviewer: EPA G. Garbacik Significant? No Comment # **3893**
Document: Binder XXII Utility Building Category: Technical
Location: Drawings
Sheet S-2
Comment:

208. Add note(s) that joists require special bearing seats because slope is greater than 1/4:12.

Response by Dave Stephens. It is recommended that a note be added to require special bearing seats for joists.

OU 7-10 Staged Interim Action Project, Stage II, Title II
Response Report - sorted by Unique Comment Number

Printed: 10/30/00

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3894**
Document:	Binder XXII Utility Building		Category: Technical		
Location:	Drawings Sheet S-2				
Comment:					

209. Side lap puddle welds in 20-gage material are very difficult. Consider mechanical fastenings.

Response by Dave Stephens. It is recommended that mechanical fastenings be considered as a replacement for the welding.

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3895**
Document:	Binder XXII Utility Building		Category: Technical		
Location:	Drawings Sheet S-2				
Comment:					

210. Note 3 conflicts with Section B (length of bearing).

Response by Dave Stephens. It is recommended that the detail be corrected when the coordination between drawings for the angle sizes is carried out as indicated in the response to comment 3886. [3886 response: It is recommended that angle sizes be made to agree between drawings.]

EPA	Reviewer: EPA G. Garbacik		Significant? No	Comment #	**3896**
Document:	Binder XXII Utility Building		Category: Technical		
Location:	Drawings Sheet S-2				
Comment:					

211. Under Note 4, the joist designer requires the net uplift load.

Response by Dave Stephens. It is recommended that Note 4 be changed to give net uplift load.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? Yes	Comment #	3897
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation			
Comment:	Page 9 (no sections listed)			

83. TABLE 2, ON page 9, shows the expected radioactivity IN the Stage II waste zone BY waste type. However, the total amount OF plutonium(Pu)listed per drum does NOT correspond WITH the total amount OF Pu listed per drum FOR each waste type AS listed IN Binder 5, Preliminary Criticality Safety Evaluation. Discrepancies are listed below :

Table 2, Air Emissions Evaluation:
741 sludge: 4.3 grams Pu/drum
Graphite: 9.9 grams Pu/drum
Non-combustible 3.6 grams Pu/drum
744 sludge: 1 gram Pu/drum
Combustibles: 0.5 grams Pu/drum Table 1, Preliminary Criticality Safety Evaluation741 sludge: 157 grams Pu/drum
Graphite: 61 grams/drum
Non-combustible: 129 grams Pu/drum
744 sludge: 22 grams Pu/drum
Combustibles 45 grams Pu/drum

In addition, Table 1 of the Preliminary Criticality Safety Evaluation lists 743 sludge (16 grams Pu/drum), 745 sludge (0.09 grams Pu/drum), 742 sludge (8.9 grams Pu/drum), and Empty Drums (3.0 grams Pu/drum). These waste types are apparently not included in the Air Emission Evaluation. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

EPA	Reviewer: EPA Kashdan_Flannery	Significant? Yes	Comment #	3898
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)		
Location:	INEEL/EXT-98-00848 Air Emission Evaluation			
Comment:	Page 9 (no sections listed)			

84. The Air Emission Evaluation text (P. 8) states that the drum loading information used was obtained from Thomas (1999 a, b) to determine a worst-case activity inventory. Suggest that information in the PSA, dated January 2000, be used to provide information for the air emission evaluation. [Cross reference UCN 3897; 3898; 4007; 4008; and 4009.]

Response by Daryl Lopez. We recommend further evaluation of incorporating the proposed change into the document.

OU 7-10 Staged Interim Action Project, Stage II, Title II Response Report - sorted by Unique Comment Number

Printed: 10/30/00

378

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment #	**3899**
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)		
Location:	DOE/ID-10789 Waste Management Plan Page 4-8, Section 4.2.1.2			
Comment:				

85. Text on this page states that it is not automatically assumed that listed or characteristic waste codes apply to non-stained interstitial and underburden soils. Per this text, listed/characteristic waste codes will only apply if analysis shows that specific codes do apply.

Response by Brent Burton. We recommend that the language in the last sentence of Section 4.2.1.2 be revised to clarify that a hazardous waste determination or evaluation will be performed and that the word "analysis" be deleted so as to not imply that analytical data drives the HWD (i.e., for listed wastes). As written, the waste management plan presents an approach that does not characterize non-stained soils as listed or characteristic wastes. The intent of the plan is to make this determination during Stage II operations based on the data collected and observations of the digface conditions (e.g., origin of drums relative to other drums/potential for cross-contamination etc.). For listed codes, the HWD will primarily be based on the observational information vs. analytical data as the determination is process knowledge driven (i.e., did the soils contact a listed waste source?).

EPA	Reviewer: EPA Kashdan_Flannery	Significant? No	Comment #	**3900**
Document:	Binder V Env/Saf/Q Docs	Category: Chemistry/Radiochemistry (SMO)		
Location:	DOE/ID-10789 Waste Management Plan Page 4-8, Section 4.2.1.2			
Comment:				

86. In the FSP (Binder 2, Table 4-1, page 4-3), it appears that not all drums of non-stained soils will be sampled for analysis. Table 4-1 in the FSP shows that no samples of drummed, non-stained, less than 10 nCi/gm, interstitial soils will be sampled for VOC, SVOC, PCBs, CLP metals, or any other analysis. For drummed underburden soils less than 10 nCi/gm, only 40 samples will be collected for VOCs, SVOCs, PCBs, and CLP metals. According to the Waste Management Plan (p 4-8). The total estimated volume of interstitial and underburden soils is expected to total between 619 and 747 drums.

Response by Beth McIlwain. We recommend adding clarification of proposed sampling of non-stained, less than or equal to 10 nCi/g soil. (FSP presents statistical estimation of true mean concentration of VOC, SVOC, PCB, and metals to confirm contaminants are not at levels of concern. Underburden and overburden are mentioned specifically).